

## ABNORMAL TEST RESULT

## OF MODEL LEB150F

1. Did Cheese Cloth or Paper Glow?

No.

2. Did Ground Fuse Open?

No.

3. Dielectric breakdown?

No.

4. Other Results?

See the following pages .

( FMEA : 2/27 ~ 23/27)

( Abnormal Test Result: 24/27 ~ 27/27)

There was no emission of flame, molten metal, ignition of cheesecloth, dielectric breakdown, opening of the ground fuse, other indication of a shock or fire hazard.

## F M E A

| Component | Mode  | Comment                 | Output Voltage (V)   |
|-----------|-------|-------------------------|----------------------|
| C101      | Open  | Normal operation.       |                      |
|           | Short | F101 opened, No hazard. | V1:0<br>V2:0         |
| C102      | Open  | Normal operation.       |                      |
|           | Short | F101 opened, No hazard. | V1:0<br>V2:0         |
| C103      | Open  | Normal operation.       |                      |
|           | Short | F101 opened, No hazard. | V1:0<br>V2:0         |
| C104      | Open  | Normal operation.       |                      |
|           | Short | F101 opened, No hazard. | V1:0<br>V2:0         |
| C108      | Open  | Normal operation.       |                      |
|           | Short | No Hazard.              | V1:Decreased<br>V2:0 |
| C109      | Open  | Normal operation.       |                      |
|           | Short | No Hazard.              | V1:Decreased<br>V2:0 |
| C110      | Open  | Normal operation.       |                      |
|           | Short | Normal operation.       |                      |
| C111      | Open  | See 24 Page.            |                      |
|           | Short | See 24 Page.            |                      |
| C112      | Open  | See 24 Page.            |                      |
|           | Short | See 24 Page.            |                      |
| C113      | Open  | Normal operation.       |                      |
|           | Short | R122 opened, No hazard. | V1:Decreased<br>V2:0 |
| C114      | Open  | Normal operation.       |                      |
|           | Short | No Hazard.              | V1:Decreased<br>V2:0 |
| C115      | Open  | F101 opened, No hazard. | V1:0<br>V2:0         |
|           | Short | No Hazard.              | V1:Decreased<br>V2:0 |

## F M E A

| Component | Mode  | Comment                 | Output Voltage (V)   |
|-----------|-------|-------------------------|----------------------|
| C116      | Open  | Normal operation.       |                      |
|           | Short | No Hazard.              | V1:Decreased<br>V2:0 |
| C117      | Open  | Normal operation.       |                      |
|           | Short | No Hazard.              | V1:Decreased<br>V2:0 |
| C118      | Open  | Normal operation.       |                      |
|           | Short | Normal operation.       |                      |
| C119      | Open  | See 24 Page.            |                      |
|           | Short | F101 opened, No hazard. | V1:0<br>V2:0         |
| C120      | Open  | Normal operation.       |                      |
|           | Short | Normal operation.       |                      |
| C201      | Open  | See 24 Page.            |                      |
|           | Short | No Hazard.              | V2:0                 |
| C203      | Open  | See 24 Page.            |                      |
|           | Short | No Hazard.              | V2:0                 |
| C204      | Open  | Normal operation.       |                      |
|           | Short | Normal operation.       |                      |
| C205      | Open  | No Hazard.              | V2:Decreased         |
|           | Short | Normal operation.       |                      |
| C206      | Open  | Normal operation.       |                      |
|           | Short | Normal operation.       |                      |
| C207      | Open  | Normal operation.       |                      |
|           | Short | Normal operation.       |                      |
| C208      | Open  | Normal operation.       |                      |
|           | Short | Normal operation.       |                      |

## F M E A

| Component | Mode  | Comment           | Output Voltage (V) |
|-----------|-------|-------------------|--------------------|
| C209      | Open  | Normal operation. |                    |
|           | Short | Normal operation. |                    |
| C210      | Open  | Normal operation. |                    |
|           | Short | Normal operation. |                    |
| C211      | Open  | Normal operation. |                    |
|           | Short | Normal operation. |                    |
| C212      | Open  | Normal operation. |                    |
|           | Short | See 24 Page.      |                    |
| C231      | Open  | Normal operation. |                    |
|           | Short | No Hazard.        | V2:0               |
| C232      | Open  | Normal operation. |                    |
|           | Short | Normal operation. |                    |
| C233      | Open  | See 24 Page.      |                    |
|           | Short | Normal operation. |                    |
| C234      | Open  | Normal operation. |                    |
|           | Short | Normal operation. |                    |
| C235      | Open  | Normal operation. |                    |
|           | Short | Normal operation. |                    |
| C302      | Open  | See 24 Page.      |                    |
|           | Short | See 24 Page.      |                    |
| C303      | Open  | Normal operation. |                    |
|           | Short | Normal operation. |                    |
| C304      | Open  | Normal operation. |                    |
|           | Short | Normal operation. |                    |

## F M E A

| Component | Mode  | Comment           | Output Voltage (V) |
|-----------|-------|-------------------|--------------------|
| C305      | Open  | Normal operation. |                    |
|           | Short | See 24 Page.      |                    |
| C307      | Open  | See 24 Page.      |                    |
|           | Short | See 24 Page.      |                    |
| C501      | Open  | Normal operation. |                    |
|           | Short | Normal operation. |                    |
| C502      | Open  | Normal operation. |                    |
|           | Short | Normal operation. |                    |
| C505      | Open  | Normal operation. |                    |
|           | Short | Normal operation. |                    |
| C506      | Open  | Normal operation. |                    |
|           | Short | Normal operation. |                    |
| C507      | Open  | Normal operation. |                    |
|           | Short | No Hazard.        | V2:0               |
| C508      | Open  | Normal operation. |                    |
|           | Short | No Hazard.        | V2:0               |
| C510      | Open  | No Hazard.        | V2:Decreased       |
|           | Short | No Hazard.        | V2:Decreased       |
| C602      | Open  | Normal operation. |                    |
|           | Short | Normal operation. |                    |
| C603      | Open  | Normal operation. |                    |
|           | Short | No Hazard.        | V1:Decreased       |
| C604      | Open  | Normal operation. |                    |
|           | Short | No Hazard.        | V1:Decreased       |

## F M E A

| Component | Mode  | Comment                 | Output Voltage (V)   |
|-----------|-------|-------------------------|----------------------|
| C606      | Open  | See 24 Page.            |                      |
|           | Short | No Hazard.              | V1:0                 |
| C607      | Open  | See 24 Page.            |                      |
|           | Short | No Hazard.              | V1:0                 |
| C608      | Open  | See 24 Page.            |                      |
|           | Short | No Hazard.              | V1:0                 |
| C609      | Open  | Normal operation.       |                      |
|           | Short | Normal operation.       |                      |
| D102      | Open  | See 24 Page.            |                      |
|           | Short | See 24 Page.            |                      |
| D103      | Open  | No Hazard.              | V1:Decreased<br>V2:0 |
|           | Short | Normal operation.       |                      |
| D104      | Open  | Normal operation.       |                      |
|           | Short | Normal operation.       |                      |
| D105      | Open  | Normal operation.       |                      |
|           | Short | Normal operation.       |                      |
| D106      | Open  | See 24 Page.            |                      |
|           | Short | See 24 Page.            |                      |
| D107      | Open  | See 24 Page.            |                      |
|           | Short | See 24 Page.            |                      |
| D108      | Open  | Normal operation.       |                      |
|           | Short | R122 opened, No hazard. | V1:Decreased<br>V2:0 |
| D109      | Open  | Normal operation.       |                      |
|           | Short | Normal operation.       |                      |

## F M E A

| Component | Mode  | Comment           | Output Voltage (V) |
|-----------|-------|-------------------|--------------------|
| D110      | Open  | Normal operation. |                    |
|           | Short | Normal operation. |                    |
| D201      | Open  | No Hazard.        | V2:0               |
|           | Short | Normal operation. |                    |
| D202      | Open  | No Hazard.        | V2:0               |
|           | Short | Normal operation. |                    |
| D203      | Open  | Normal operation. |                    |
|           | Short | No Hazard.        | V2:0               |
| D204      | Open  | Normal operation. |                    |
|           | Short | Normal operation. |                    |
| D207      | Open  | Normal operation. |                    |
|           | Short | See 24 Page.      |                    |
| D231      | Open  | No Hazard.        | V2:0               |
|           | Short | Normal operation. |                    |
| D232      | Open  | Normal operation. |                    |
|           | Short | Normal operation. |                    |
| D233      | Open  | Normal operation. |                    |
|           | Short | Normal operation. |                    |
| D301      | Open  | Normal operation. |                    |
|           | Short | Normal operation. |                    |
| D302      | Open  | Normal operation. |                    |
|           | Short | Normal operation. |                    |
| D303      | Open  | Normal operation. |                    |
|           | Short | See 25 Page.      |                    |

## F M E A

| Component | Mode  |     | Comment                 | Output Voltage (V)   |
|-----------|-------|-----|-------------------------|----------------------|
| D601      | Open  |     | See 25 Page.            |                      |
|           | Short |     | See 25 Page.            |                      |
| D602      | Open  |     | See 25 Page.            |                      |
|           | Short |     | See 25 Page.            |                      |
| IC101     | Open  | 1   | Normal operation.       |                      |
|           |       | 2   | Normal operation.       |                      |
|           |       | 3   | Normal operation.       |                      |
|           |       | 4   | Normal operation.       |                      |
|           |       | 5   | Normal operation.       |                      |
|           |       | 6   | Normal operation.       |                      |
|           |       | 7   | No Hazard.              | V1:Decreased<br>V2:0 |
|           |       | 8   | F101 opened, No hazard. | V1:0<br>V2:0         |
|           |       | 9   | No Hazard.              | V1:Decreased<br>V2:0 |
|           |       | 10  | F101 opened, No hazard. | V1:0<br>V2:0         |
|           |       | 11  | Normal operation.       |                      |
|           |       | 12  | No Hazard.              | V1:Decreased<br>V2:0 |
|           |       | 13  | F101 opened, No hazard. | V1:0<br>V2:0         |
|           |       | 14  | Normal operation.       |                      |
|           |       | 15  | F101 opened, No hazard. | V1:0<br>V2:0         |
|           |       | 16  | F101 opened, No hazard. | V1:0<br>V2:0         |
|           | Short | 1-2 | No Hazard.              | V1:Decreased<br>V2:0 |
|           |       | 2-3 | Normal operation.       |                      |
|           |       | 3-4 | No Hazard.              | V1:Decreased<br>V2:0 |
|           |       | 4-5 | No Hazard.              | V1:Decreased<br>V2:0 |

## F M E A

| Component | Mode  |       | Comment                 | Output Voltage (V)   |
|-----------|-------|-------|-------------------------|----------------------|
| IC101     | Short | 5-6   | No Hazard.              | V1:Decreased<br>V2:0 |
|           |       | 6-7   | Normal operation.       |                      |
|           |       | 7-8   | R122 opened, No hazard. | V1:Decreased<br>V2:0 |
|           |       | 9-10  | Normal operation.       |                      |
|           |       | 10-11 | No Hazard.              | V1:Decreased<br>V2:0 |
|           |       | 11-12 | Normal operation.       |                      |
|           |       | 12-13 | No Hazard.              | V1:Decreased<br>V2:0 |
|           |       | 13-14 | No Hazard.              | V1:Decreased<br>V2:0 |
|           |       | 14-15 | F101 opened, No hazard. | V1:0<br>V2:0         |
|           |       | 15-16 | F101 opened, No hazard. | V1:0<br>V2:0         |
| IC201     | Open  | 1     | No Hazard.              | V2:0                 |
|           |       | 2     | No Hazard.              | V2:0                 |
|           |       | 3     | F101 opened, No hazard. | V1:0<br>V2:0         |
|           |       | 4     | Normal operation.       |                      |
|           |       | 5     | Normal operation.       |                      |
|           |       | 6     | Normal operation.       |                      |
|           |       | 7     | Normal operation.       |                      |
|           |       | 8     | Normal operation.       |                      |
|           |       | 9     | Normal operation.       |                      |
|           |       | 10    | No Hazard.              | V2:0                 |
|           |       | 11    | No Hazard.              | V2:0                 |
|           |       | 12    | See 25 Page.            |                      |
|           |       | 13    | See 25 Page.            |                      |
|           |       | 14    | Normal operation.       |                      |

## F M E A

| Component | Mode  |       | Comment           | Output Voltage (V) |
|-----------|-------|-------|-------------------|--------------------|
| IC201     | Open  | 15    | Normal operation. |                    |
|           |       | 16    | Normal operation. |                    |
|           |       | 17    | No Hazard.        | V2:0               |
|           |       | 18    | Normal operation. |                    |
|           |       | 19    | Normal operation. |                    |
|           |       | 20    | No Hazard.        | V2:0               |
|           | Short | 1-2   | See 25 Page.      |                    |
|           |       | 2-3   | No Hazard.        | V2:0               |
|           |       | 3-4   | Normal operation. |                    |
|           |       | 4-5   | Normal operation. |                    |
|           |       | 5-6   | Normal operation. |                    |
|           |       | 6-7   | Normal operation. |                    |
|           |       | 7-8   | Normal operation. |                    |
|           |       | 8-9   | Normal operation. |                    |
|           |       | 9-10  | No Hazard.        | V2:0               |
|           |       | 11-12 | No Hazard.        | V2:0               |
|           |       | 12-13 | No Hazard.        | V2:0               |
|           |       | 13-14 | Normal operation. |                    |
|           |       | 14-15 | Normal operation. |                    |
|           |       | 15-16 | Normal operation. |                    |
|           |       | 16-17 | Normal operation. |                    |
|           |       | 17-18 | Normal operation. |                    |
|           |       | 18-19 | Normal operation. |                    |
|           |       | 19-20 | No Hazard.        | V2:0               |

## F M E A

| Component | Mode  |     | Comment           | Output Voltage (V) |
|-----------|-------|-----|-------------------|--------------------|
| IC231     | Open  | K   | Normal operation. |                    |
|           |       | A   | Normal operation. |                    |
|           |       | R   | Normal operation. |                    |
|           | Short | A-K | No Hazard.        | V2:0               |
|           |       | K-R | No Hazard.        | V2:0               |
|           |       | R-A | Normal operation. |                    |
| IC501     | Open  | K   | No Hazard.        | V2:0               |
|           |       | A   | No Hazard.        | V2:0               |
|           |       | R   | No Hazard.        | V2:0               |
|           | Short | A-K | No Hazard.        | V2:Decreased       |
|           |       | K-R | No Hazard.        | V2:Decreased       |
|           |       | R-A | No Hazard.        | V2:0               |
| IC601     | Open  | K   | No Hazard.        | V1:0               |
|           |       | A   | No Hazard.        | V1:0               |
|           |       | R   | No Hazard.        | V1:0               |
|           | Short | A-K | No Hazard.        | V1:Decreased       |
|           |       | K-R | No Hazard.        | V1:Decreased       |
|           |       | R-A | No Hazard.        | V1:0               |
| J201      | Open  |     | No Hazard.        | V2:0               |
| J501      | Open  |     | Normal operation. |                    |
| J502      | Open  |     | No Hazard.        | V2:0               |
| L101      | Open  |     | No Hazard.        | V1:0<br>V2:0       |
|           | Short |     | Normal operation. |                    |
| L102      | Open  |     | No Hazard.        | V1:0<br>V2:0       |

## F M E A

| Component | Mode  |            | Comment                 | Output Voltage (V) |
|-----------|-------|------------|-------------------------|--------------------|
| L102      | Short |            | Normal operation.       |                    |
| L103      | Open  | 1, 2or6, 7 | No Hazard.              | V1:0<br>V2:0       |
|           |       | 4or5       | See 25 Page.            |                    |
|           | Short | 1, 2-6, 7  | F101 opened, No hazard. | V1:0<br>V2:0       |
|           |       | 4-5        | See 25 Page.            |                    |
| L104      | Open  |            | F101 opened, No hazard. | V1:0<br>V2:0       |
| L507      | Open  |            | See 25 Page.            |                    |
|           | Short |            | See 25 Page.            |                    |
| L508      | Open  |            | Normal operation.       |                    |
|           | Short |            | Normal operation.       |                    |
| L601      | Open  |            | No Hazard.              | V1:0               |
|           | Short |            | Normal operation.       |                    |
| PC201     | Open  | A, K       | No Hazard.              | V2:0               |
|           |       | C, E       | No Hazard.              | V2:0               |
|           | Short | A-K        | No Hazard.              | V2:0               |
|           |       | C-E        | No Hazard.              | V2:0               |
| PC202     | Open  | A, K       | Normal operation.       |                    |
|           |       | C, E       | Normal operation.       |                    |
|           | Short | A-K        | Normal operation.       |                    |
|           |       | C-E        | No Hazard.              | V2:0               |
| PC301     | Open  | A, K       | No Hazard.              | V1:0               |
|           |       | C, E       | No Hazard.              | V1:0               |
|           | Short | A-K        | No Hazard.              | V1:0               |
|           |       | C-E        | No Hazard.              | V1:0               |

## F M E A

| Component | Mode | Comment           | Output Voltage (V)   |
|-----------|------|-------------------|----------------------|
| R101      | Open | Normal operation. |                      |
| R102      | Open | Normal operation. |                      |
| R103      | Open | Normal operation. |                      |
| R104      | Open | Normal operation. |                      |
| R105      | Open | Normal operation. |                      |
| R106      | Open | No Hazard.        | V1:Decreased<br>V2:0 |
| R107      | Open | No Hazard.        | V1:Decreased<br>V2:0 |
| R108      | Open | No Hazard.        | V1:Decreased<br>V2:0 |
| R109      | Open | No Hazard.        | V1:Decreased<br>V2:0 |
| R110      | Open | Normal operation. |                      |
| R111      | Open | No Hazard.        | V1:Decreased<br>V2:0 |
| R112      | Open | Normal operation. |                      |
| R113      | Open | Normal operation. |                      |
| R114      | Open | Normal operation. |                      |
| R115      | Open | Normal operation. |                      |
| R116      | Open | No Hazard.        | V1:Decreased<br>V2:0 |
| R117      | Open | No Hazard.        | V1:Decreased<br>V2:0 |
| R118      | Open | No Hazard.        | V1:Decreased<br>V2:0 |
| R119      | Open | Normal operation. |                      |
| R120      | Open | Normal operation. |                      |
| R121      | Open | Normal operation. |                      |
| R122      | Open | Normal operation. |                      |
| R123      | Open | Normal operation. |                      |
| R124      | Open | See 25 Page.      |                      |

## F M E A

| Component | Mode | Comment                 | Output Voltage (V)   |
|-----------|------|-------------------------|----------------------|
| R125      | Open | See 25 Page.            |                      |
| R126      | Open | No Hazard.              | V1:Decreased<br>V2:0 |
| R127      | Open | No Hazard.              | V1:Decreased<br>V2:0 |
| R128      | Open | Normal operation.       |                      |
| R129      | Open | Normal operation.       |                      |
| R130      | Open | Normal operation.       |                      |
| R131      | Open | Normal operation.       |                      |
| R132      | Open | F101 opened, No hazard. | V1:0<br>V2:0         |
| R133      | Open | Normal operation.       |                      |
| R134      | Open | Normal operation.       |                      |
| R135      | Open | Normal operation.       |                      |
| R136      | Open | Normal operation.       |                      |
| R137      | Open | Normal operation.       |                      |
| R138      | Open | No Hazard.              | V1:Decreased<br>V2:0 |
| R139      | Open | Normal operation.       |                      |
| R140      | Open | Normal operation.       |                      |
| R141      | Open | Normal operation.       |                      |
| R142      | Open | Normal operation.       |                      |
| R143      | Open | No Hazard.              | V1:Decreased<br>V2:0 |
| R144      | Open | Normal operation.       |                      |
| R145      | Open | Normal operation.       |                      |
| R146      | Open | Normal operation.       |                      |
| R147      | Open | Normal operation.       |                      |
| R201      | Open | Normal operation.       |                      |

F M E A

| Component | Mode | Comment           | Output Voltage (V) |
|-----------|------|-------------------|--------------------|
| R202      | Open | Normal operation. |                    |
| R203      | Open | Normal operation. |                    |
| R204      | Open | Normal operation. |                    |
| R205      | Open | Normal operation. |                    |
| R206      | Open | No Hazard.        | V2:0               |
| R207      | Open | No Hazard.        | V2:0               |
| R208      | Open | No Hazard.        | V2:Decreased       |
| R209      | Open | No Hazard.        | V2:0               |
| R210      | Open | No Hazard.        | V2:0               |
| R211      | Open | Normal operation. |                    |
| R212      | Open | Normal operation. |                    |
| R213      | Open | See 25 Page.      |                    |
| R214      | Open | Normal operation. |                    |
| R215      | Open | No Hazard.        | V2:Decreased       |
| R216      | Open | Normal operation. |                    |
| R217      | Open | No Hazard.        | V2:Decreased       |
| R219      | Open | Normal operation. |                    |
| R221      | Open | Normal operation. |                    |
| R224      | Open | Normal operation. |                    |
| R225      | Open | Normal operation. |                    |
| R226      | Open | Normal operation. |                    |
| R227      | Open | Normal operation. |                    |
| R231      | Open | Normal operation. |                    |
| R232      | Open | Normal operation. |                    |

## F M E A

| Component | Mode | Comment                 | Output Voltage (V) |
|-----------|------|-------------------------|--------------------|
| R233      | Open | Normal operation.       |                    |
| R234      | Open | Normal operation.       |                    |
| R235      | Open | No Hazard.              | V2:0               |
| R236      | Open | No Hazard.              | V2:0               |
| R237      | Open | Normal operation.       |                    |
| R238      | Open | Normal operation.       |                    |
| R239      | Open | Normal operation.       |                    |
| R240      | Open | See 25 Page.            |                    |
| R241      | Open | See 25 Page.            |                    |
| R301      | Open | Normal operation.       |                    |
| R302      | Open | Normal operation.       |                    |
| R303      | Open | Normal operation.       |                    |
| R304      | Open | Normal operation.       |                    |
| R305      | Open | Normal operation.       |                    |
| R306      | Open | F101 opened, No hazard. | V1:0<br>V2:0       |
| R307      | Open | Normal operation.       |                    |
| R308      | Open | Normal operation.       |                    |
| R309      | Open | See 25 Page.            |                    |
| R310      | Open | F101 opened, No hazard. | V1:0<br>V2:0       |
| R311      | Open | See 25 Page.            |                    |
| R312      | Open | Normal operation.       |                    |
| R313      | Open | See 25 Page.            |                    |
| R314      | Open | See 25 Page.            |                    |
| R501      | Open | Normal operation.       |                    |

## F M E A

| Component | Mode | Comment           | Output Voltage (V) |
|-----------|------|-------------------|--------------------|
| R502      | Open | Normal operation. |                    |
| R503      | Open | No Hazard.        | V2:0               |
| R504      | Open | Normal operation. |                    |
| R505      | Open | No Hazard.        | V2:Decreased       |
| R506      | Open | No Hazard.        | V2:0               |
| R507      | Open | No Hazard.        | V2:Decreased       |
| R508      | Open | No Hazard.        | V2:Decreased       |
| R509      | Open | No Hazard.        | V2:0               |
| R510      | Open | Normal operation. |                    |
| R511      | Open | Normal operation. |                    |
| R512      | Open | Normal operation. |                    |
| R513      | Open | Normal operation. |                    |
| R514      | Open | Normal operation. |                    |
| R515      | Open | Normal operation. |                    |
| R521      | Open | Normal operation. |                    |
| R522      | Open | Normal operation. |                    |
| R523      | Open | Normal operation. |                    |
| R524      | Open | Normal operation. |                    |
| R525      | Open | Normal operation. |                    |
| R526      | Open | Normal operation. |                    |
| R527      | Open | Normal operation. |                    |
| R528      | Open | Normal operation. |                    |
| R529      | Open | Normal operation. |                    |
| R530      | Open | Normal operation. |                    |

## F M E A

| Component | Mode  |              | Comment                 | Output Voltage (V) |
|-----------|-------|--------------|-------------------------|--------------------|
| R531      | Open  |              | Normal operation.       |                    |
| R532      | Open  |              | Normal operation.       |                    |
| R533      | Open  |              | Normal operation.       |                    |
| R534      | Open  |              | Normal operation.       |                    |
| R535      | Open  |              | Normal operation.       |                    |
| R601      | Open  |              | No Hazard.              | V1:0               |
| R602      | Open  |              | Normal operation.       |                    |
| R603      | Open  |              | No Hazard.              | V1:0               |
| R604      | Open  |              | Normal operation.       |                    |
| R605      | Open  |              | No Hazard.              | V1:Decreased       |
| R606      | Open  |              | No Hazard.              | V1:0               |
| R607      | Open  |              | No Hazard.              | V1:Decreased       |
| R610      | Open  |              | Normal operation.       |                    |
| R611      | Open  |              | Normal operation.       |                    |
| R612      | Open  |              | Normal operation.       |                    |
| R613      | Open  |              | Normal operation.       |                    |
| R614      | Open  |              | Normal operation.       |                    |
| R615      | Open  |              | Normal operation.       |                    |
| SK101     | Open  |              | Normal operation.       |                    |
|           | Short |              | F101 opened, No hazard. | V1:0<br>V2:0       |
| SS101     | Open  |              | No Hazard.              | V1:0<br>V2:0       |
|           | Short |              | F101 opened, No hazard. | V1:0<br>V2:0       |
| SS501     | Open  | Forward side | See 25 Page.            |                    |
|           |       | Flyback side | See 25 Page.            |                    |

## F M E A

| Component | Mode  |                    | Comment                 | Output Voltage (V)   |
|-----------|-------|--------------------|-------------------------|----------------------|
| SS501     | Short | Forward side       | See 25 Page.            |                      |
|           |       | Flyback side       | See 26 Page.            |                      |
| SS601     | Open  | Cathode            | See 26 Page.            |                      |
|           |       | Alternative anodes | See 26 Page.            |                      |
|           | Short |                    | No Hazard.              | V1:0                 |
| T201      | Open  | 4or6               | No Hazard.              | V2:0                 |
|           |       | 2or3               | No Hazard.              | V2:0                 |
|           |       | 8,9or10,11         | See 26 Page.            |                      |
|           | Short | 4-6                | F101 opened, No hazard. | V1:0<br>V2:0         |
|           |       | 2-3                | No Hazard.              | V2:0                 |
|           |       | 8,9-10,11          | See 26 Page.            |                      |
| T301      | Open  | 5or7               | No Hazard.              | V1:0                 |
|           |       | 8or9               | See 26 Page.            |                      |
|           |       | 1,2or3,4           | See 26 Page.            |                      |
|           | Short | 5-7                | F101 opened, No hazard. | V1:0<br>V2:0         |
|           |       | 8-9                | F101 opened, No hazard. | V1:0<br>V2:0         |
|           |       | 1,2-3,4            | F101 opened, No hazard. | V1:0<br>V2:0         |
| TH101     | Open  |                    | No Hazard.              | V1:0<br>V2:0         |
|           | Short |                    | Normal operation.       |                      |
| TR101     | Open  | C                  | No Hazard.              | V1:Decreased<br>V2:0 |
|           |       | E                  | No Hazard.              | V1:Decreased<br>V2:0 |
|           |       | B                  | No Hazard.              | V1:Decreased<br>V2:0 |
|           | Short | C-E                | Normal operation.       |                      |
|           |       | E-B                | No Hazard.              | V1:Decreased<br>V2:0 |

## F M E A

| Component | Mode  |     | Comment           | Output Voltage (V)   |
|-----------|-------|-----|-------------------|----------------------|
| TR101     | Short | B-C | Normal operation. |                      |
| TR102     | Open  | C   | No Hazard.        | V1:Decreased<br>V2:0 |
|           |       | E   | No Hazard.        | V1:Decreased<br>V2:0 |
|           |       | B   | No Hazard.        | V1:Decreased<br>V2:0 |
|           | Short | C-E | Normal operation. |                      |
|           |       | E-B | No Hazard.        | V1:Decreased<br>V2:0 |
|           |       | B-C | Normal operation. |                      |
| TR103     | Open  | D   | Normal operation. |                      |
|           |       | S   | Normal operation. |                      |
|           |       | G   | Normal operation. |                      |
|           | Short | D-S | See 26 Page.      |                      |
|           |       | S-G | Normal operation. |                      |
|           |       | G-D | See 26 Page.      |                      |
| TR104     | Open  | C   | See 26 Page.      |                      |
|           |       | E   | See 26 Page.      |                      |
|           |       | B   | See 26 Page.      |                      |
|           | Short | C-E | Normal operation. |                      |
|           |       | E-B | See 26 Page.      |                      |
|           |       | B-C | Normal operation. |                      |
| TR105     | Open  | D   | See 26 Page.      |                      |
|           |       | S   | See 26 Page.      |                      |
|           |       | G   | See 26 Page.      |                      |
|           | Short | D-S | See 26 Page.      |                      |
|           |       | S-G | See 26 Page.      |                      |

## F M E A

| Component | Mode  |     | Comment           | Output Voltage (V) |
|-----------|-------|-----|-------------------|--------------------|
| TR105     | Short | G-D | See 26 Page.      |                    |
| TR201     | Open  | D   | See 26 Page.      |                    |
|           |       | S   | See 26 Page.      |                    |
|           |       | G   | See 26 Page.      |                    |
|           | Short | D-S | See 26 Page.      |                    |
|           |       | S-G | See 26 Page.      |                    |
|           |       | G-D | See 27 Page.      |                    |
| TR231     | Open  | C   | Normal operation. |                    |
|           |       | E   | Normal operation. |                    |
|           |       | B   | Normal operation. |                    |
|           | Short | C-E | No Hazard.        | V2:0               |
|           |       | E-B | Normal operation. |                    |
|           |       | B-C | No Hazard.        | V2:0               |
| TR232     | Open  | C   | No Hazard.        | V2:0               |
|           |       | E   | No Hazard.        | V2:0               |
|           |       | B   | No Hazard.        | V2:0               |
|           | Short | C-E | Normal operation. |                    |
|           |       | E-B | No Hazard.        | V2:0               |
|           |       | B-C | Normal operation. |                    |
| TR301     | Open  | D   | See 27 Page.      |                    |
|           |       | S   | See 27 Page.      |                    |
|           |       | G   | See 27 Page.      |                    |
|           | Short | D-S | See 27 Page.      |                    |
|           |       | S-G | See 27 Page.      |                    |

## F M E A

| Component | Mode  |       | Comment                 | Output Voltage (V) |
|-----------|-------|-------|-------------------------|--------------------|
| TR301     | Short | G-D   | See 27 Page.            |                    |
| TR302     | Open  | C     | F101 opened, No hazard. | V1:0<br>V2:0       |
|           |       | E     | F101 opened, No hazard. | V1:0<br>V2:0       |
|           |       | B     | F101 opened, No hazard. | V1:0<br>V2:0       |
|           | Short | C-E   | No Hazard.              | V1:0               |
|           |       | E-B   | F101 opened, No hazard. | V1:0<br>V2:0       |
|           |       | B-C   | No Hazard.              | V1:0               |
| VR601     | Open  | brush | No Hazard.              | V1:Decreased       |
|           |       |       | No Hazard.              | V1:Decreased       |
|           | Short |       | No Hazard.              | V1:0               |
| ZD101     | Open  |       | No Hazard.              | V1:Decreased       |
|           | Short |       | Normal operation.       |                    |
| ZD102     | Open  |       | Normal operation.       |                    |
|           | Short |       | Normal operation.       |                    |
| ZD103     | Open  |       | See 27 Page.            |                    |
|           | Short |       | Normal operation.       |                    |
| ZD104     | Open  |       | Normal operation.       |                    |
|           | Short |       | R122 opened, No hazard. | V1:Decreased       |
| ZD231     | Open  |       | Normal operation.       |                    |
|           | Short |       | Normal operation.       |                    |
| ZD301     | Open  |       | Normal operation.       |                    |
|           | Short |       | No Hazard.              | V1:0               |
| ZD302     | Open  |       | Normal operation.       |                    |
|           | Short |       | No Hazard.              | V1:0               |

F M E A

| Component | Mode  | Comment           | Output Voltage (V) |
|-----------|-------|-------------------|--------------------|
| ZD501     | Open  | Normal operation. |                    |
|           | Short | No Hazard.        | V2:0               |
| ZD502     | Open  | Normal operation. |                    |
|           | Short | No Hazard.        | V2:0               |
| ZD601     | Open  | Normal operation. |                    |
|           | Short | No Hazard.        | V1:0               |

ABNORMAL TEST RESULT

| Component | Mode  | Comment                 | Output Voltage (V)   |
|-----------|-------|-------------------------|----------------------|
| C111      | Open  | V1:Decreased V2:0       | V1:Decreased<br>V2:0 |
|           | Short | V1:Decreased V2:0       | V1:Decreased<br>V2:0 |
| C112      | Open  | Normal operation.       |                      |
|           | Short | Normal operation.       |                      |
| C119      | Open  | F101 opened, No hazard. | V1:0<br>V2:0         |
| C201      | Open  | Normal operation.       |                      |
| C203      | Open  | No Hazard.              | V2:0                 |
| C212      | Short | No Hazard.              | V2:0                 |
| C233      | Open  | Normal operation.       |                      |
| C302      | Open  | F101 opened, No hazard. | V1:0<br>V2:0         |
|           | Short | No Hazard.              | V1:Decreased         |
| C305      | Short | F101 opened, No hazard. | V1:0<br>V2:0         |
| C307      | Open  | No Hazard.              | V1:0                 |
|           | Short | No Hazard.              | V1:Decreased         |
| C606      | Open  | Normal operation.       |                      |
| C607      | Open  | Normal operation.       |                      |
| C608      | Open  | Normal operation.       |                      |
| D102      | Open  | F101 opened, No hazard. | V1:0<br>V2:0         |
|           | Short | F101 opened, No hazard. | V1:0<br>V2:0         |
| D106      | Open  | Normal operation.       |                      |
|           | Short | Normal operation.       |                      |
| D107      | Open  | Normal operation.       |                      |
|           | Short | Normal operation.       |                      |
| D207      | Short | No Hazard.              | V2:0                 |

## ABNORMAL TEST RESULT

| Component | Mode  |              | Comment                 | Output Voltage (V) |
|-----------|-------|--------------|-------------------------|--------------------|
| D303      | Short |              | F101 opened, No hazard. | V1:0<br>V2:0       |
| D601      | Open  |              | Normal operation.       |                    |
|           | Short |              | No Hazard.              | V1:0               |
| D602      | Open  |              | Normal operation.       |                    |
|           | Short |              | Normal operation.       |                    |
| IC201     | Open  | 12           | No Hazard.              | V2:0               |
|           |       | 13           | No Hazard.              | V2:Decreased       |
|           | Short | 1-2          | Normal operation.       |                    |
| L103      | Open  | 4or5         | Normal operation.       |                    |
|           | Short | 4-5          | Normal operation.       |                    |
| L507      | Open  |              | F101 opened, No hazard. | V1:0<br>V2:0       |
|           | Short |              | No Hazard.              | V2:Decreased       |
| R124      | Open  |              | Normal operation.       |                    |
| R125      | Open  |              | Normal operation.       |                    |
| R213      | Open  |              | F101 opened, No hazard. | V1:0<br>V2:0       |
| R240      | Open  |              | No Hazard.              | V2:0               |
| R241      | Open  |              | No Hazard.              | V2:0               |
| R309      | Open  |              | F101 opened, No hazard. | V1:0<br>V2:0       |
| R311      | Open  |              | No Hazard.              | V1:0               |
| R313      | Open  |              | Normal operation.       |                    |
| R314      | Open  |              | Normal operation.       |                    |
| SS501     | Open  | Forward side | F101 opened, No hazard. | V1:0<br>V2:0       |
|           |       | Flyback side | F101 opened, No hazard. | V1:0<br>V2:0       |
|           | Short | Forward side | No Hazard.              | V2:0               |

ABNORMAL TEST RESULT

| Component | Mode  |              | Comment                 | Output Voltage (V)   |
|-----------|-------|--------------|-------------------------|----------------------|
| SS501     | Short | Flyback side | No Hazard.              | V2:0                 |
| SS601     | Open  | Cathode      | No Hazard.              | V1:0                 |
|           |       | Alternative  | Normal operation.       |                      |
| T201      | Open  | 8, 9or10, 11 | F101 opened, No hazard. | V1:0<br>V2:0         |
|           | Short | 8, 9-10, 11  | No Hazard.              | V2:0                 |
| T301      | Open  | 8or9         | F101 opened, No hazard. | V1:0<br>V2:0         |
|           |       | 1, 2or3, 4   | No Hazard.              | V1:0                 |
| TR103     | Short | D-S          | No Hazard.              | V1:Decreased<br>V2:0 |
|           |       | G-D          | No Hazard.              | V1:Decreased<br>V2:0 |
| TR104     | Open  | C            | Normal operation.       |                      |
|           |       | E            | Normal operation.       |                      |
|           |       | B            | Normal operation.       |                      |
|           | Short | E-B          | Normal operation.       |                      |
| TR105     | Open  | D            | No Hazard.              | V1:Decreased<br>V2:0 |
|           |       | S            | No Hazard.              | V1:Decreased<br>V2:0 |
|           |       | G            | F101 opened, No hazard. | V1:0<br>V2:0         |
|           | Short | D-S          | F101 opened, No hazard. | V1:0<br>V2:0         |
|           |       | S-G          | R122 opened, No hazard. | V1:Decreased<br>V2:0 |
|           |       | G-D          | F101 opened, No hazard. | V1:0<br>V2:0         |
| TR201     | Open  | D            | No Hazard.              | V2:0                 |
|           |       | S            | No Hazard.              | V2:0                 |
|           |       | G            | F101 opened, No hazard. | V1:0<br>V2:0         |
|           | Short | D-S          | F101 opened, No hazard. | V1:0<br>V2:0         |
|           |       | S-G          | No Hazard.              | V2:0                 |



ABNORMAL TEST RESULT

| Component | Mode  |     | Comment                 | Output Voltage (V) |
|-----------|-------|-----|-------------------------|--------------------|
| TR201     | Short | G-D | F101 opened, No hazard. | V1:0<br>V2:0       |
| TR301     | Open  | D   | No Hazard.              | V1:0               |
|           |       | S   | No Hazard.              | V1:0               |
|           |       | G   | F101 opened, No hazard. | V1:0<br>V2:0       |
|           | Short | D-S | F101 opened, No hazard. | V1:0<br>V2:0       |
|           |       | S-G | No Hazard.              | V1:0               |
|           |       | G-D | F101 opened, No hazard. | V1:0<br>V2:0       |
| ZD103     | Open  |     | Normal operation.       |                    |