参考資料

COSEL

March 1, 2018
OS DESIGN DEPT.3

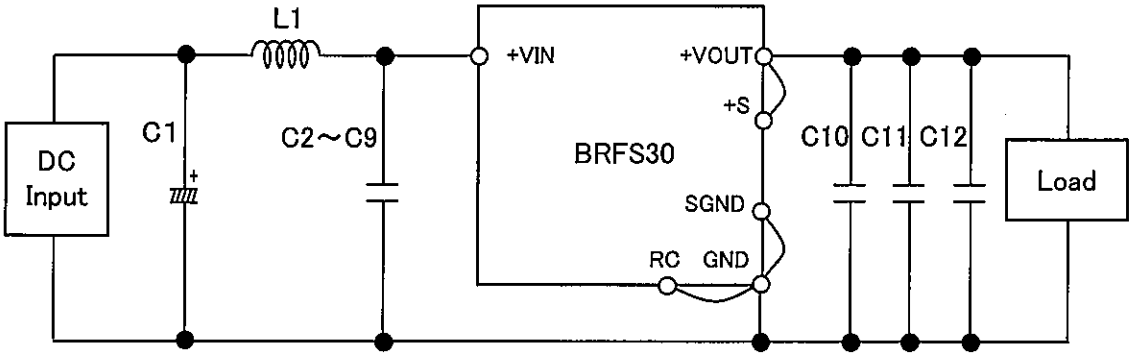
BRFS series EMI／EMS Test result

Approved : Yoshimichi Hirokawa
Yoshimichi Hirokawa

Prepared : Takeshi Usuda
Takeshi Usuda

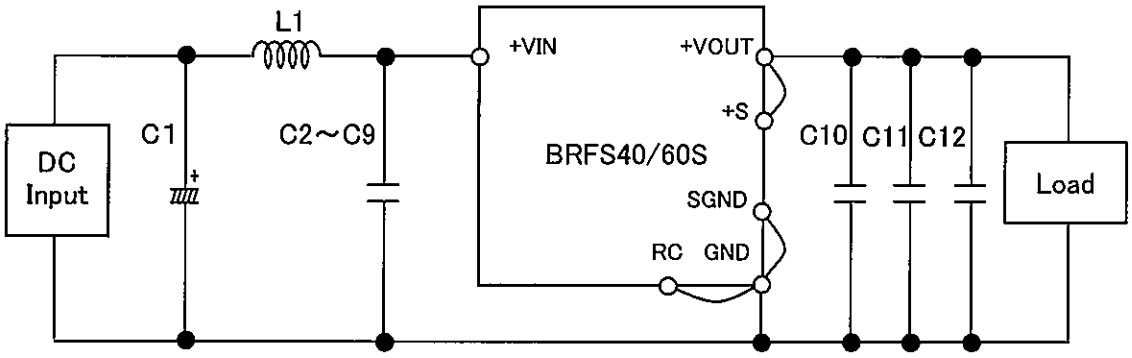
No.	Test item	Conditions	Conditions of Acceptability	Result
1	Line conduction	(1) Rated input(DC12V) (2) Rated load (3) Ambient temp. 25±10℃ (4) Testing circuitry Fig.1～Fig.7	(1)Meets the undermentioned standard. FCC Part15 classA , VCCI classA CISPR22 classA , EN55022-A	ok
2	Radiated emission	(1) Rated input(DC12V) (2) Rated load (3) Ambient temp. 25±10℃ (4) Testing circuitry Fig.1～Fig.7	(1)Meets the undermentioned standard. FCC Part15 classA , VCCI classA CISPR22 classA , EN55022-A	ok
3	Static electricity immunity test (EN61000-4-2)	(1) Rated input(DC12V) (2) Rated load (3) Ambient temp. 25±10℃ (4) Contact discharge voltage 8[kV] (EN61000-4-2 Level 4) (5) Testing circuitry Fig.1～Fig.7	(1)No protection circuit failure. (2)No output voltage drop with control circuit failure. (3)No any other function failure	ok
4	Radiated, radio-frequency, electromagnetic field immunity test (EN61000-4-3)	(1) Rated input(DC12V) (2) Rated load (3) Ambient temp. 25±10℃ (4)Testing field strength 10[V/m] (EN61000-4-3 Level 3) (5) Testing circuitry Fig.1～Fig.7	(1)No protection circuit failure. (2)No output voltage drop with control circuit failure. (3)No any other function failure	ok

○ Testing circuitry



C1	: 25V	220 μ F	Electrolytic capacitor
C2～9	: 16V	22 μ F	Ceramic capacitor
C10,C11,C12	: 6.3V	100 μ F	Ceramic capacitor
L1	: 0.3 μ H	ETQP2H0R3BFA	
		(Panasonic Electronics Devices)	

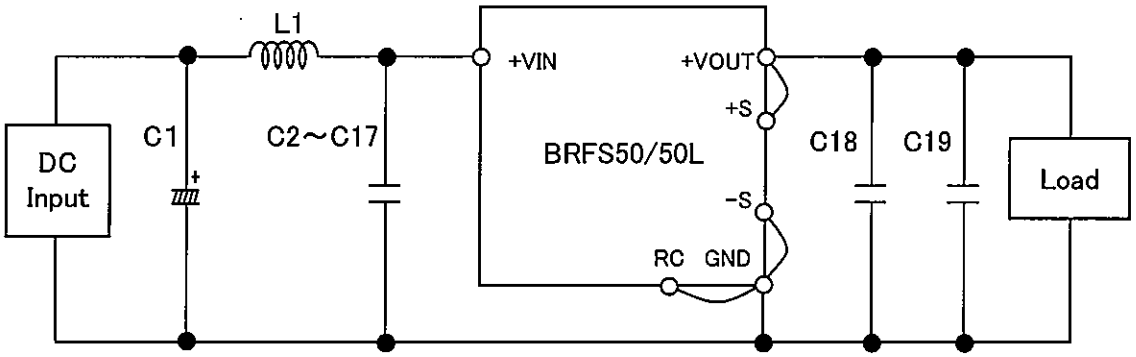
Fig.1 Testing Circuitry (BRFS30)



C1	: 25V	470 μ F	Electrolytic capacitor
C2～9	: 16V	22 μ F	Ceramic capacitor
C10,C11,C12	: 6.3V	100 μ F	Ceramic capacitor
L1	: 0.3 μ H	ETQP2H0R3BFA	
		(Panasonic Electronics Devices)	

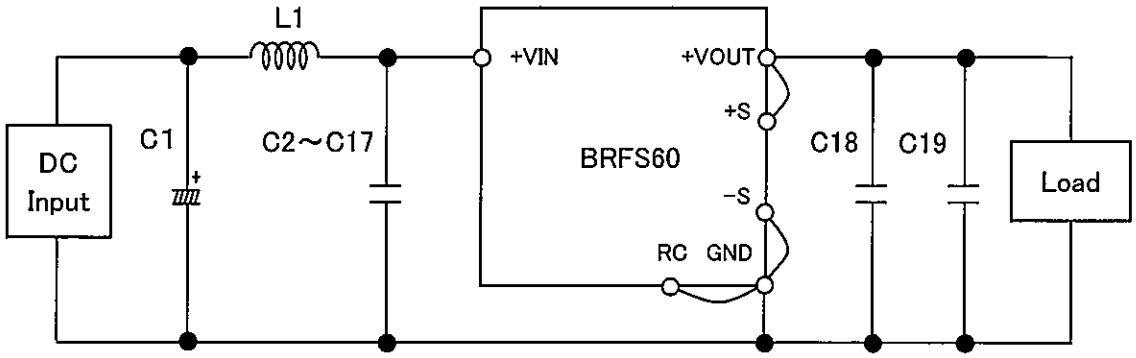
Fig.2 Testing Circuitry (BRFS40/60S)

○ Testing circuitry



C1	: 25V	220μF	Electrolytic capacitor
C2～C17	: 16V	22μF	Ceramic capacitor
C18 ,C19	: 6.3V	100μF	Ceramic capacitor
L1	: 0.3μH	ETQP2H0R3BFA	
		(Panasonic Electronics Devices)	

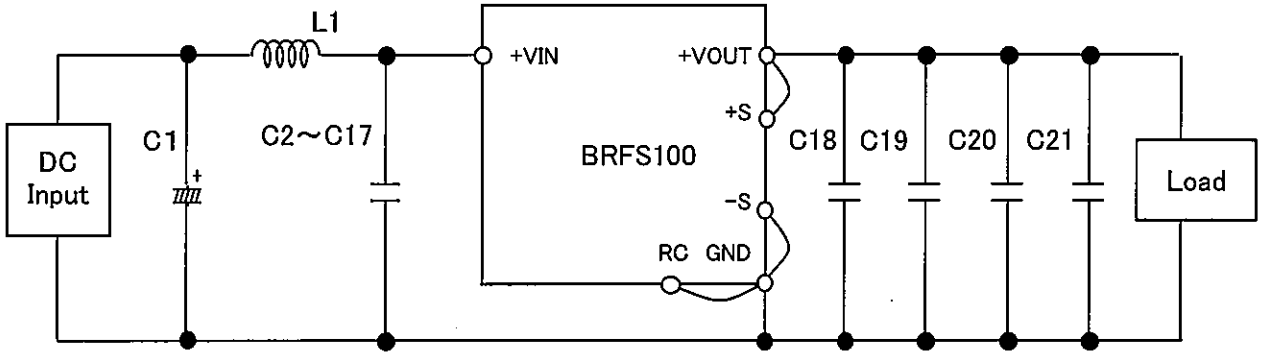
Fig.3 Testing Circuitry (BRFS50/50L)



C1	: 25V	470μF	Electrolytic capacitor
C2～C17	: 16V	22μF	Ceramic capacitor
C18 ,C19	: 6.3V	100μF	Ceramic capacitor
L1	: 0.3μH	ETQP2H0R3BFA	
		(Panasonic Electronics Devices)	

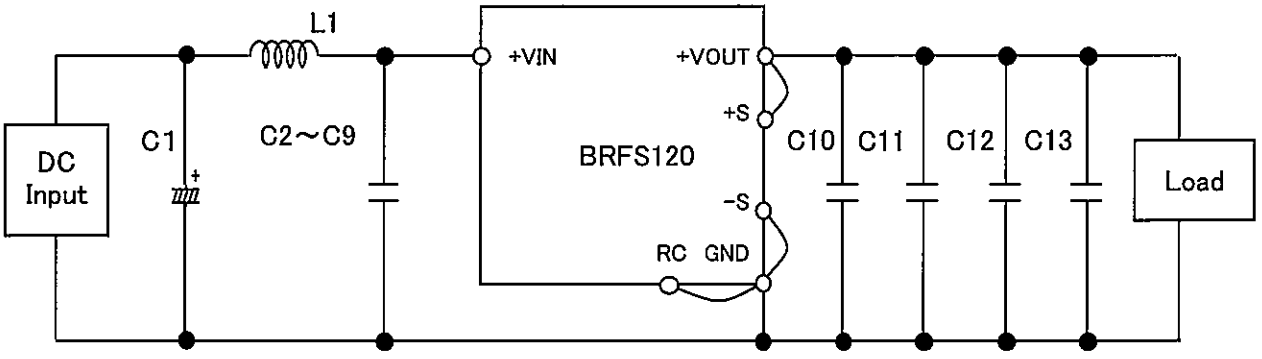
Fig.4 Testing Circuitry (BRFS60)

○ Testing circuitry



C1	: 25V	470 μ F	Electrolytic capacitor
C2～C17	: 16V	22 μ F	Ceramic capacitor
C18～C21	: 6.3V	100 μ F	Ceramic capacitor
L1	: 0.3 μ H	ETQP2H0R3BFA	
		(Panasonic Electronics Devices)	

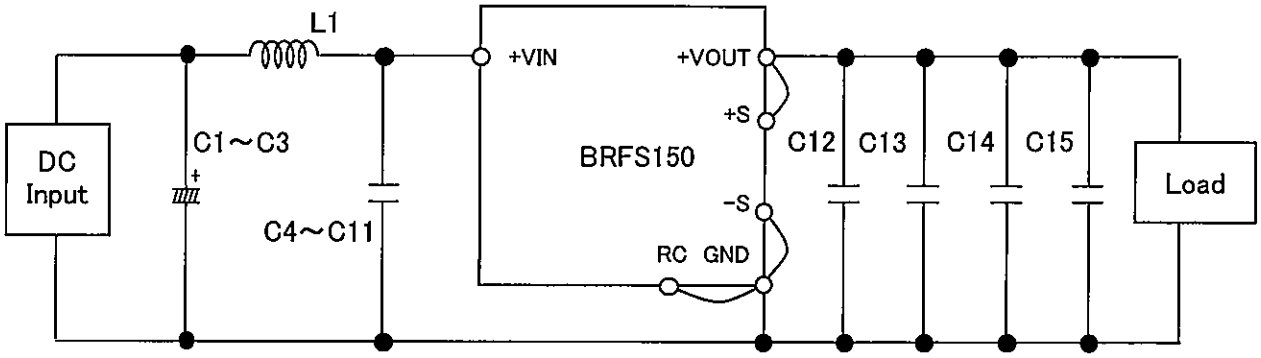
Fig.5 Testing Circuitry (BRFS100)



C1	: 25V	470 μ F	Electrolytic capacitor
C2～C9	: 16V	22 μ F	Ceramic capacitor
C10～C13	: 6.3V	100 μ F	Ceramic capacitor
L1	: 0.3 μ H	ETQP2H0R3BFA	
		(Panasonic Electronics Devices)	

Fig.6 Testing Circuitry (BRFS120)

○ Testing circuitry



C1～C3	: 25V	470μF	Electrolytic capacitor
C4～C11	: 16V	22μF	Ceramic capacitor
C12～C15	: 6.3V	100μF	Ceramic capacitor
L1	: 0.3μH	ETQP2H0R3BFA	
		(Panasonic Electronics Devices)	

Fig.7 Testing Circuitry (BRFS150)