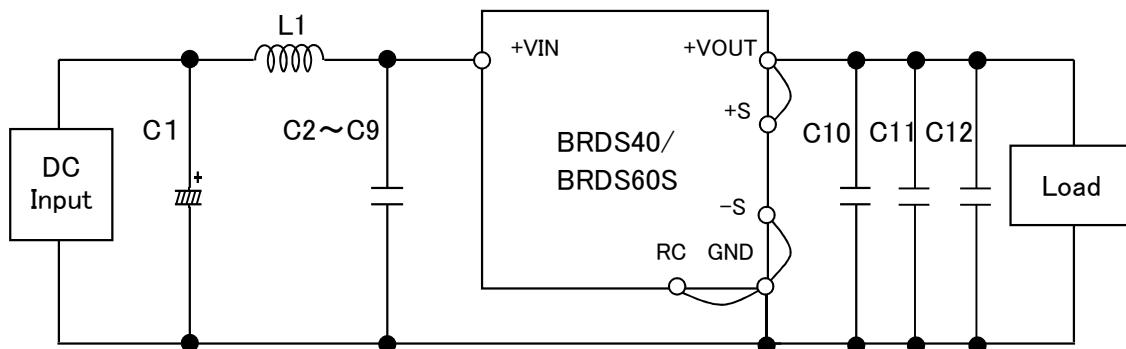


BRDS series EMI/EMS Test resultApproved : *Yoshimichi Hirokawa*
Yoshimichi HirokawaPrepared : *Yasuhiro Masuya*
Yasuhiro Masuya

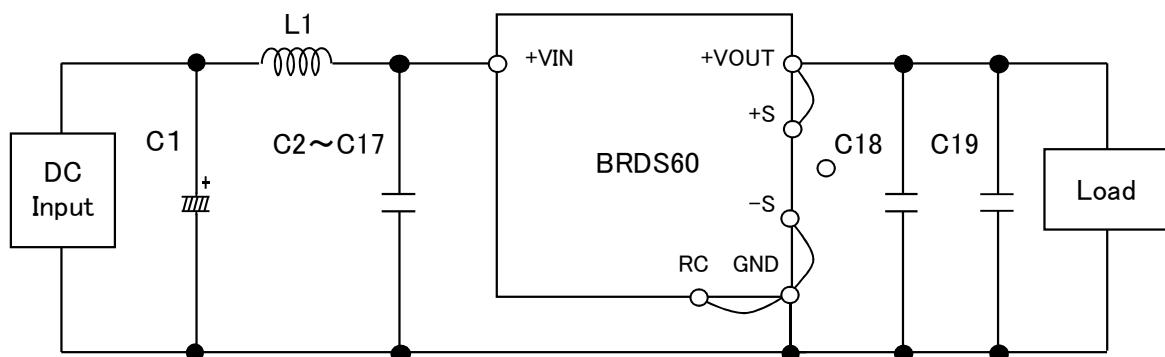
No.	Test item	Conditions	Conditions of Acceptability	Result
1	Line conduction	(1) Rated input(DC12V) (2) Rated load (3) Ambient temp. $25 \pm 10^\circ\text{C}$ (4) Testing circuitry Fig.1~Fig.4	(1)Meets the undermentioned standard. FCC Part15 classA , VCCI classA CISPR22 classA , EN55022-A	OK
2	Radiated emission	(1) Rated input(DC12V) (2) Rated load (3) Ambient temp. $25 \pm 10^\circ\text{C}$ (4) Testing circuitry Fig.1~Fig.4	(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. $25 \pm 10^\circ\text{C}$ (4) Contact discharge voltage 8[kV] (EN61000-4-2 Level 4) (5) Testing circuitry Fig.1~Fig.4	(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. $25 \pm 10^\circ\text{C}$ (4)Testing field strength 10[V/m] (EN61000-4-3 Level 3) (5) Testing circuitry Fig.1~Fig.4	(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 $470 \mu\text{F}$ Electrolytic capacitor
 C2~9 : 16V $22 \mu\text{F}$ Ceramic capacitor
 C10,C11,C12 : 6.3V $100 \mu\text{F}$ Ceramic capacitor
 L1 : $0.3 \mu\text{H}$ ETQP2H0R3BFA
 (Panasonic Electronics Devices)

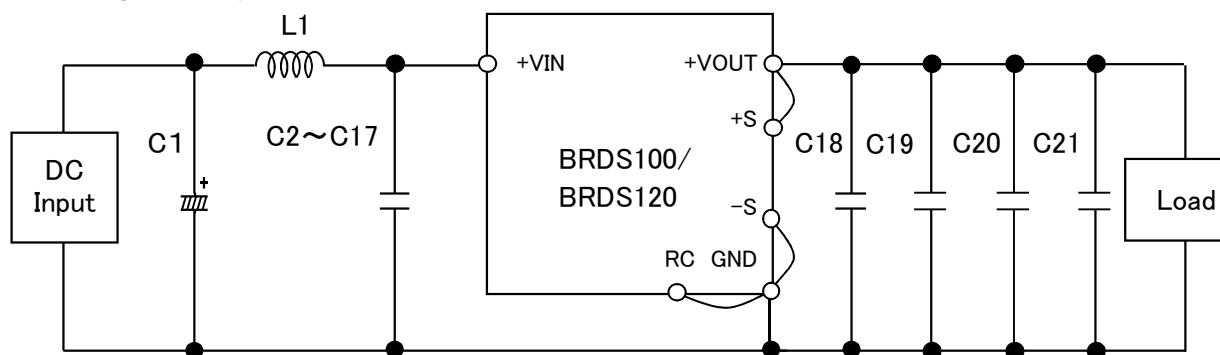
Fig.1 Testing Circuitry (BRDS40/BRDS60S)



C1 : 25V $470 \mu\text{F}$ Electrolytic capacitor
 C2~C17 : 16V $22 \mu\text{F}$ Ceramic capacitor
 C18 ,C19 : 6.3V $100 \mu\text{F}$ Ceramic capacitor
 L1 : $0.3 \mu\text{H}$ ETQP2H0R3BFA
 (Panasonic Electronics Devices)

Fig.2 Testing Circuitry (BRDS60)

○ Testing circuitry



C1 : 25V $470 \mu F$ Electrolytic capacitor

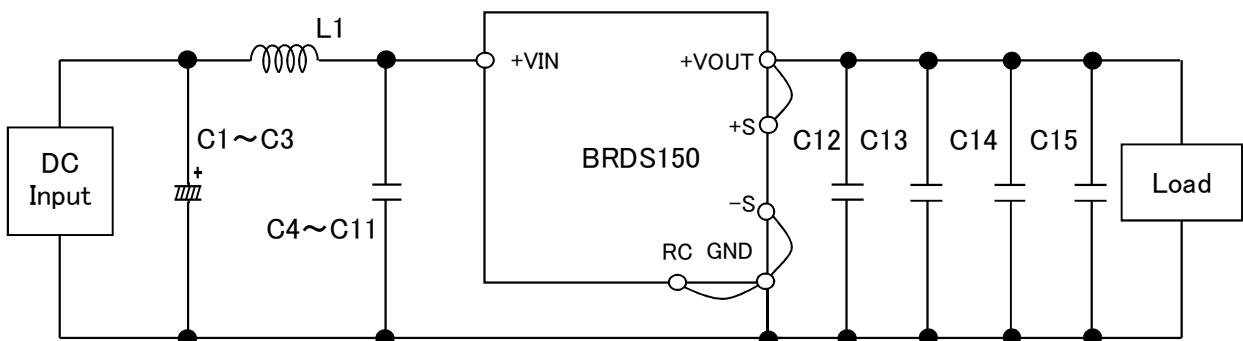
C2~C17 : 16V $22 \mu F$ Ceramic capacitor

C18~C21 : 6.3V $100 \mu F$ Ceramic capacitor

L1 : $0.3 \mu H$ ETQP2H0R3BFA

(Panasonic Electronics Devices)

Fig.3 Testing Circuitry (BRDS100/120)



C1~C3 : 25V $470 \mu F$ Electrolytic capacitor

C4~C11 : 16V $22 \mu F$ Ceramic capacitor

C12~C15 : 6.3V $100 \mu F$ Ceramic capacitor

L1 : $0.3 \mu H$ ETQP2H0R3BFA

(Panasonic Electronics Devices)

Fig.4 Testing Circuitry (BRDS150)