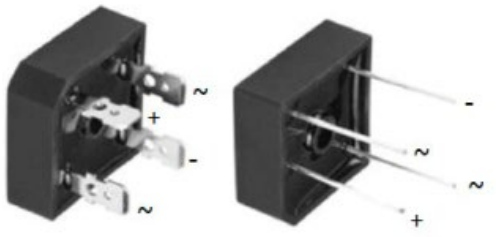
Bridge Rectifiers

Features



●Low thermal resistance;

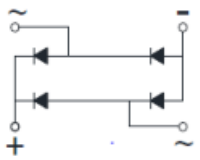
●Glass Passivated chip junction;

●High Surge current capability;

●Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant

Typical Applications

●General purpose use in AC/DC bridge full wave rectification for Server、Frequency converter、Industrial power supply.



BR

Mechanical Data

●Case: **BR**

●Terminals: Plated leads solderable per MIL-STD-750, Method 2026;

●High temperature soldering guaranteed: Solder Dip 260°C,10seconds;

●Polarity: As marked on body;

Absolute Maximum Ratings (T_A=25°C unless otherwise noted)

Parameter	Symbol	BR50 005	BR50 01	BR50 02	BR50 04	BR50 06	BR50 08	BR50 10	Unit
Maximum Repetitive Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC blocking Voltage	VDC	50	100	200	400	600	800	1000	V
Average rectified output current@60Hz sine wave, R-load, Tc =75℃	Io	50							A
Forward Surge Current (Non-repetitive)@8.3ms, Half-sine wave,1 cycle, Tj=25℃	IFSM	500							A
Current squared time @1ms≤t≤8.3ms Tj=25℃, Rating of per diode	I2t	1038							A2S
Dielectric strength@ Terminals to case, AC 1 minute	Vdis	2.5							KV
Storage temperature	Tstg	-55 ~ +150							℃
Junction temperature	Tj	-55 ~ +150							℃

Thermal Characteristics

Parameter	Symbol	Value	Unit
Between junction and case, With heatsink	RθJ-C	1.2	°C/W

Note: Device mounted on 75mm x 45mm x 5.5mm Aluminum Plate Heatsink.

Electrical Characteristics (T_A =25°C unless otherwise noted)

Parameter	Test condition	Symbol	BR50 005	BR50 01	BR50 02	BR50 04	BR50 06	BR50 08	BR50 10	UNIT
Maximum instantaneous forward voltage drop per diode	IFM=25A	V_F	1.1							V
Maximum DC reverse current at rated DC blocking voltage per diode	Tj =25℃	I_R	5							μA
	T_j =125℃		100							μA
Typical junction capacitance	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	C_j	152							pF

Typical Characteristics Curves

(T_A = 25°C unless otherwise noted)

FIG1:Io-Tc Curve

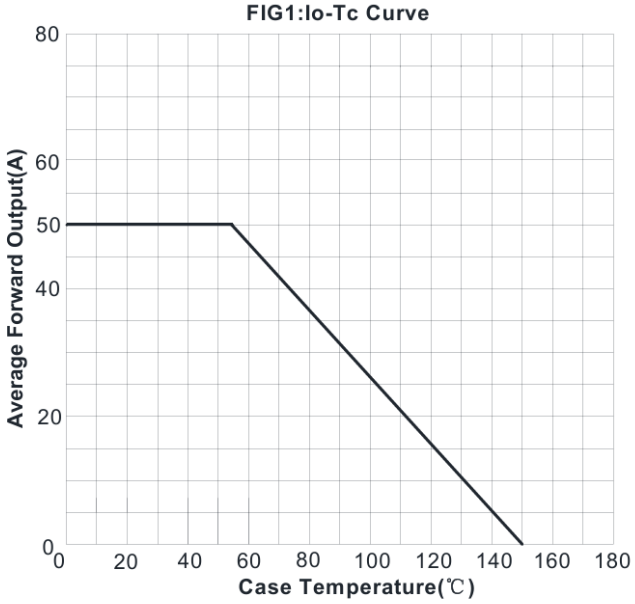


FIG2:Surge Forward Current Capability

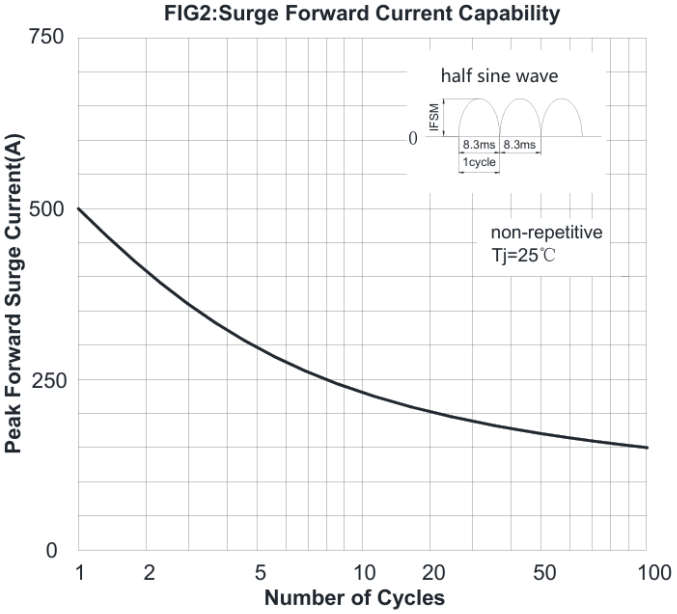


FIG3: Typical Forward Voltage

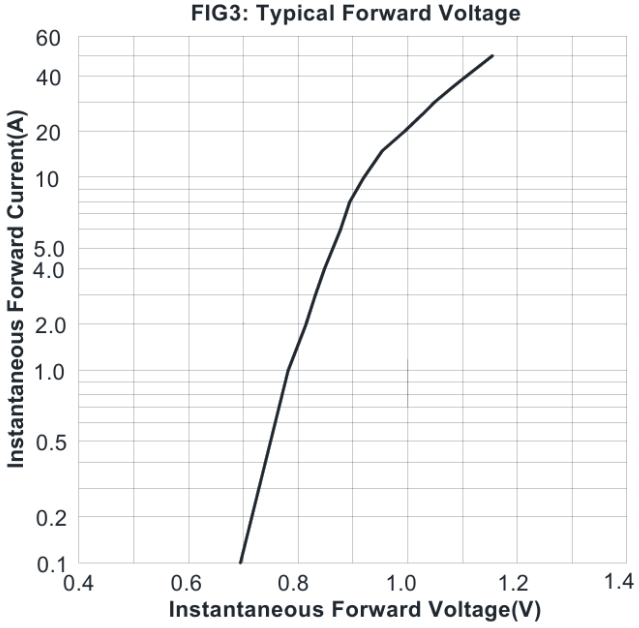
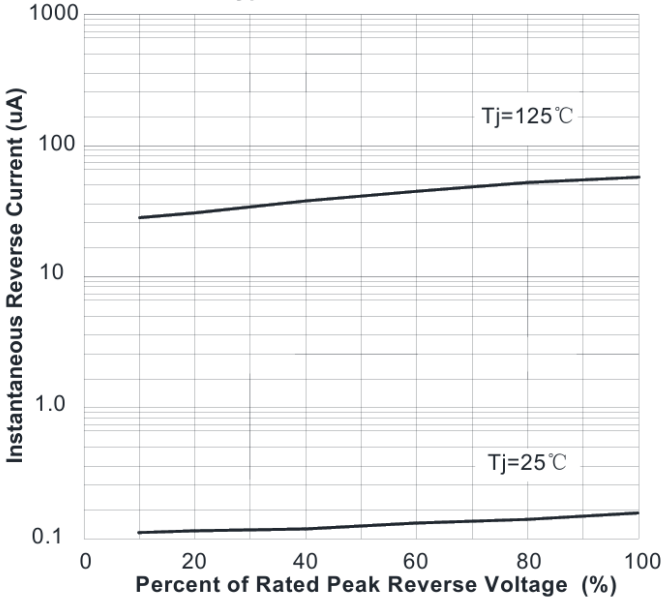
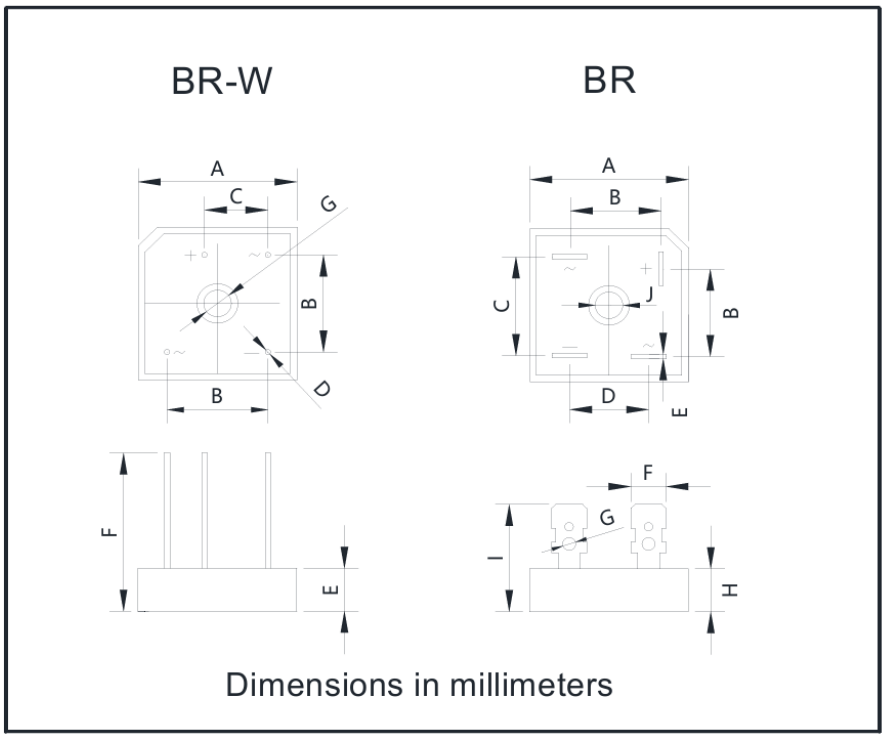


FIG4:Typical Reverse Characteristics



Outline Dimensions

（Unit: millimeters)



BR-W		
Dim	**Min**	**Max**
A	28.2	28.8
B	17.1	19.1
C	10.4	12.4
D	0.95	1.05
E	10.8	11.2
F	30	/
G	4.5	5.5

BR		
Dim	**Min**	**Max**
A	28.2	28.8
B	15.3	17.3
C	17.1	19.1
D	13.2	15.2
E	0.75	0.85
F	6.2	6.4
G	2.3	2.5
H	10.8	11.2
I	19	/
J	4.5	5.5

Revision History

Document Version	Date of release	Discroption of changes
Rev.A	2021/3/18	Released Datasheet

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