

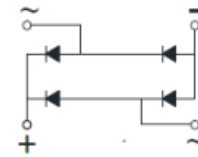
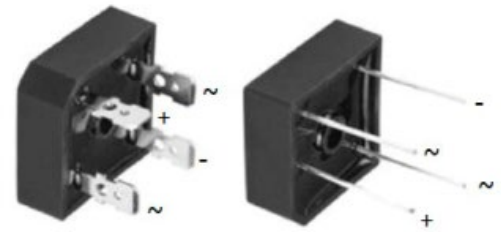
Bridge Rectifiers

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	BR25 005	BR25 01	BR25 02	BR25 04	BR25 06	BR25 08	BR25 10	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	V
Average rectified output current@60Hz sine wave, R-load, T _c =75°C	I _o	25							A
Forward Surge Current (Non-repetitive)@8.3ms, Half-sine wave, 1 cycle, T _j =25°C	I _{FSM}	400							A
Current squared time @1ms≤t≤8.3ms T _j =25°C, Rating of per diode	I ² t	664							A ² S
Dielectric strength@ Terminals to case, AC 1 minute	V _{dis}	2.5							KV
Storage temperature	T _{stg}	-55 ~ +150							°C
Junction temperature	T _j	-55 ~ +150							°C

Thermal Characteristics

Parameter	Symbol	Value	Unit
Between junction and case, With heatsink	R θ J-C	2.1	°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	BR25 005	BR25 01	BR25 02	BR25 04	BR25 06	BR25 08	BR25 10	UNIT
Maximum instantaneous forward voltage drop per diode	IFM=12.5A	V _F	1.1							V
Maximum DC reverse current at rated DC blocking voltage per diode	T _j = 25°C	I _R	5							μA
	T _j = 125°C		100							μA
Typical junction capacitance	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	C _j	110							pF

Typical Characteristics Curves

($T_A = 25^\circ\text{C}$ unless otherwise noted)

FIG1: I_o - T_c Curve

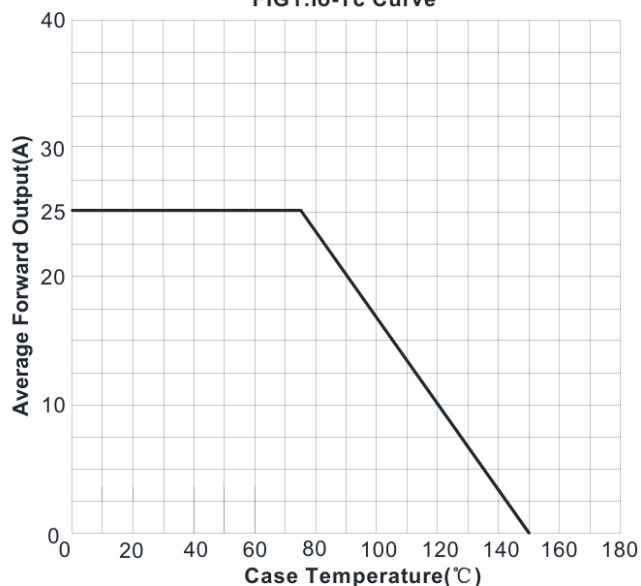


FIG2: Surge Forward Current Capability

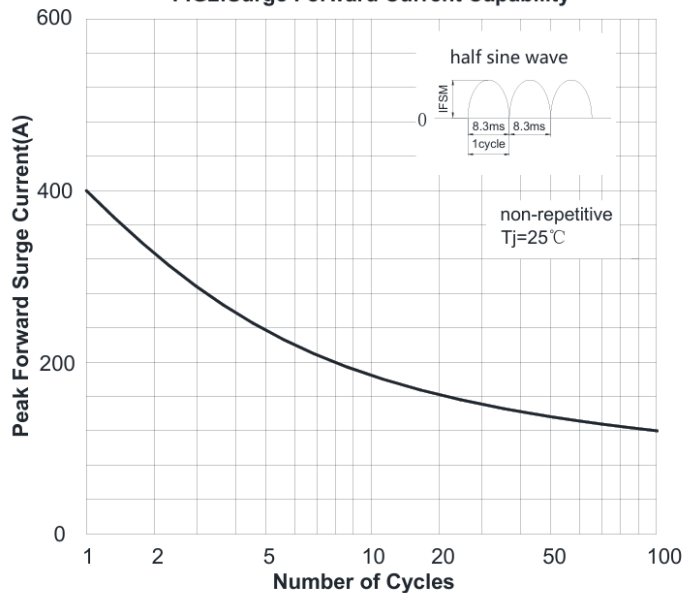


FIG3: Typical Forward Voltage

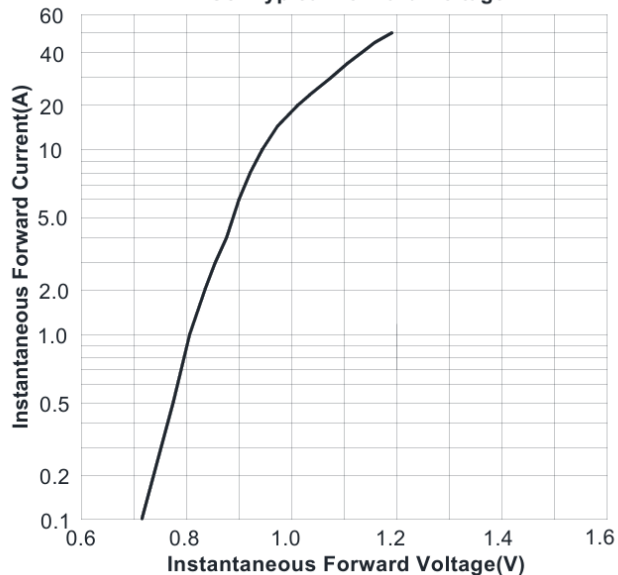
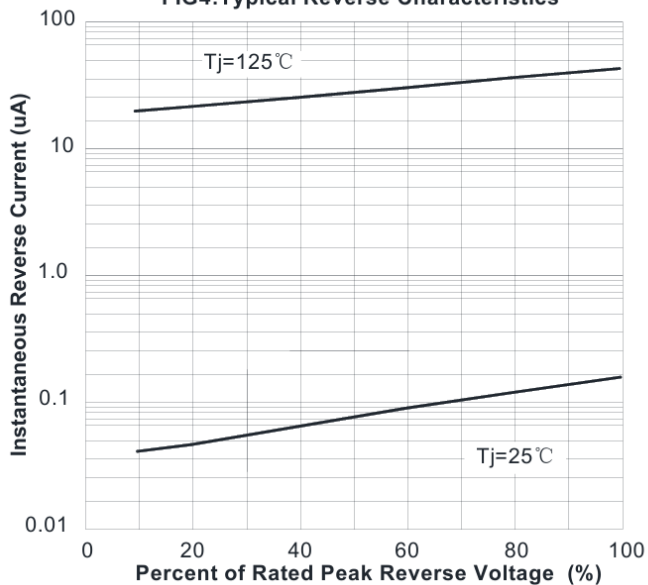
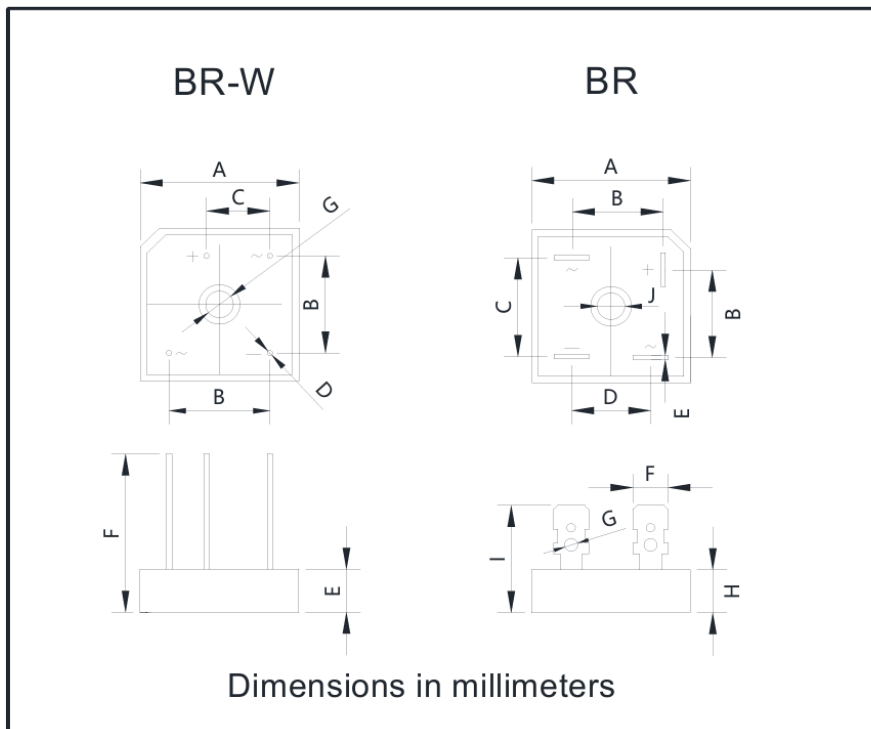


FIG4: Typical Reverse Characteristics



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	Discription of changes
Rev.A	2021/3/18	Released Datasheet

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