

### ■ FEATURES

- UL recognition, file #E230084  
Universal 3-way terminals: snap-on, wire wrap-around, or PCB mounting
- High surge current capability
- Low thermal resistance
- Solder dip 275 °C max. 7 s, per JESD 22-B106

### ■ TYPICAL APPLICATIONS

General purpose use in AC/DC bridge full wave rectification for power supply, home appliances, office equipment, industrial automation applications.

### ■ MECHANICAL DATA

- **Package:** BR, BR-W  
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102  
Suffix letter "W" added to indicate wire leads (e.g. BR3510W).

### ■ MAXIMUM RATINGS (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	BR35005	BR3501	BR3502	BR3504	BR3506	BR3508	BR3510
Device marking code			BR35005	BR3501	BR3502	BR3504	BR3506	BR3508	BR3510
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	V	50	100	200	400	600	800	1000
Average Rectified Output Current @60Hz sine wave, R-load, With heatsink, T <sub>c</sub> =55°C	I <sub>O</sub>	A	35						
Surge(Non-repetitive)Forward Current @60HZ Half- sine Wave, 1 cycle, T <sub>a</sub> =25°C	I <sub>FSM</sub>	A	400						
Current Squared Time @1ms≤t≤8.3ms T <sub>j</sub> =25°C, Rating of per diode	I <sup>2</sup> t	A <sup>2</sup> S	660						
Storage Temperature	T <sub>stg</sub>	°C	-55 ~+150						
Junction Temperature	T <sub>j</sub>	°C	-55 ~+150						
Dielectric Strength, Terminals to case, AC 1 minute	V <sub>dis</sub>	KV	2.5						
Mounting Torque	TOR	kg·cm	10						

### ■ ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	BR35005	BR3501	BR3502	BR3504	BR3506	BR3508	BR3510
Maximum instantaneous forward voltage drop per diode	V <sub>FM</sub>	V	I <sub>FM</sub> =17.5A	1.1						
Maximum DC reverse current at rated DC blocking voltage per diode	I <sub>RRM</sub>	μA	V <sub>RM</sub> =V <sub>RRM</sub>	10						

■ **THERMAL CHARACTERISTICS** ( $T_a=25^{\circ}\text{C}$  Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	BR35005	BR3501	BR3502	BR3504	BR3506	BR3508	BR3510
Thermal Resistance	Between junction and case, With heatsink	$R_{\theta J-C}$	$^{\circ}\text{C/W}$	1.5						

■ **PACKAGING INFORMATION**

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BR35005~BR3510	A1	Approximate 18.6	50	50	500	Paper Box
BR35005W~BR3510W	A1	Approximate 16.5	50	50	500	Paper Box

■ **CHARACTERISTICS (TYPICAL)**

FIG1:Io-Tc Curve

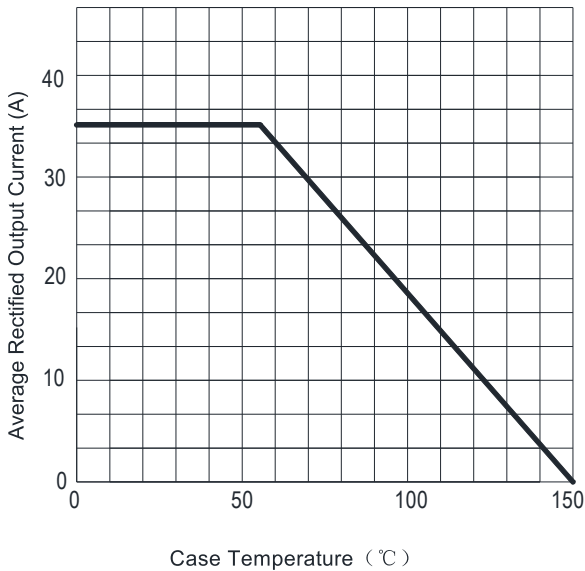


FIG2:Surge Forward Current Capability

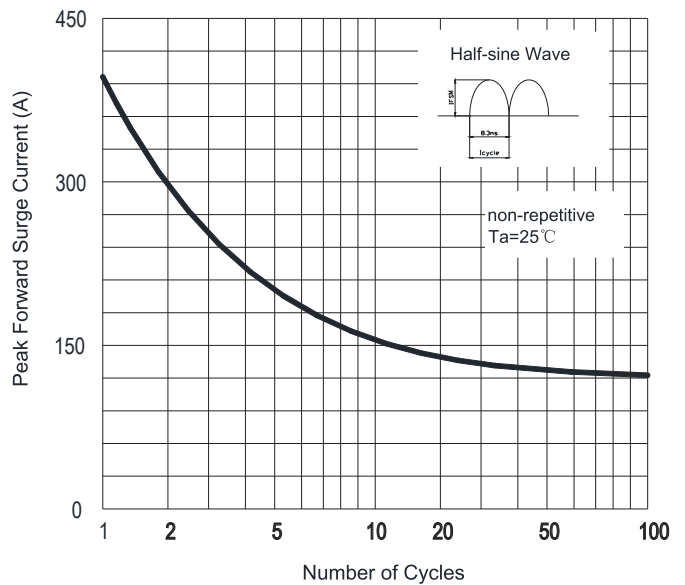


FIG3:Instantaneous Forward Voltage

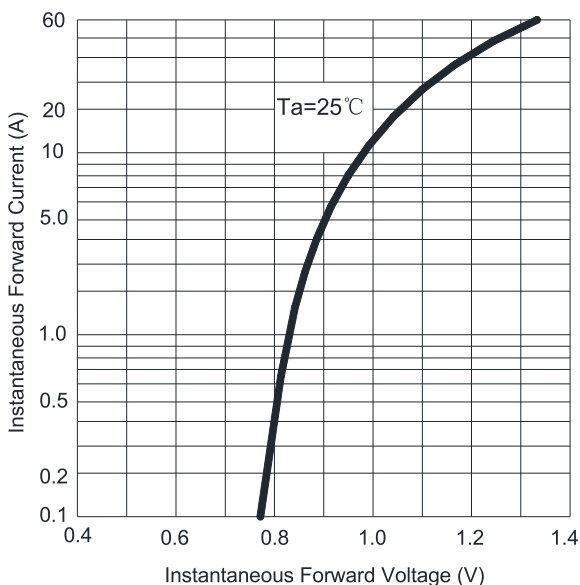
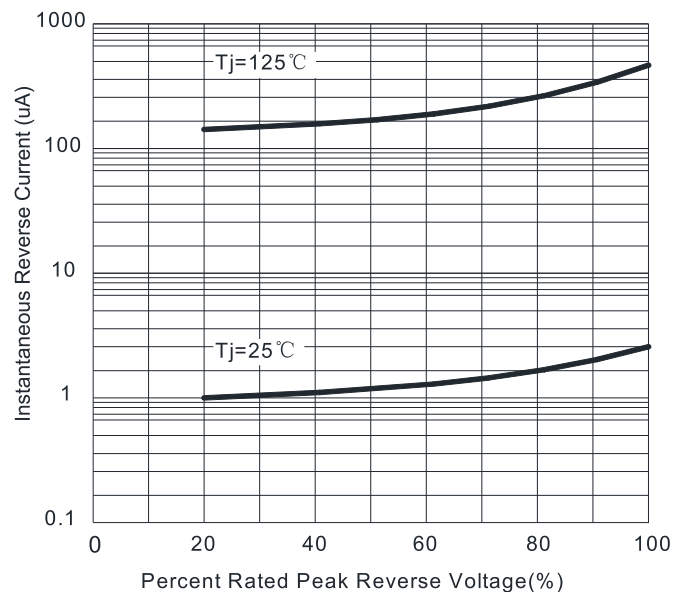
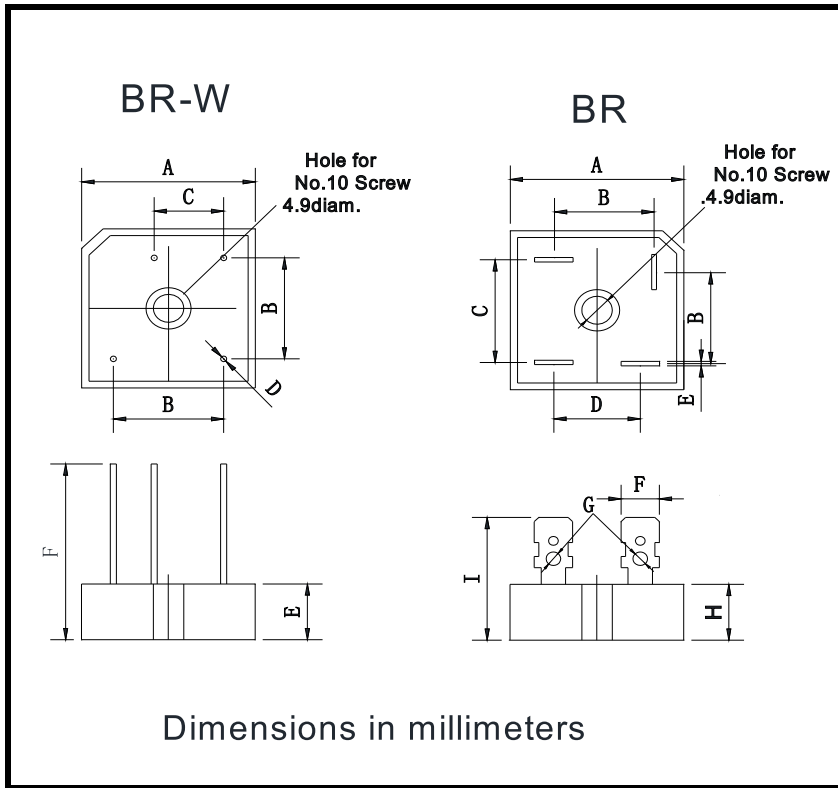


FIG4:Typical Reverse Characteristics



■ **OUTLINE DIMENSIONS**



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	/

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	/