

## Bridge Rectifiers

### Features

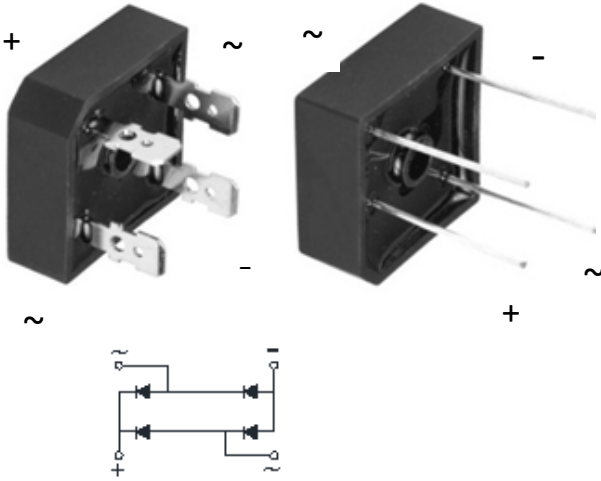
- UL recognition, file #E230084  
Universal 3-way terminals: snap-on, wire wrap-around, or PCB mounting
- High surge current capability
- Low thermal resistance
- Solder dip 275 °C max. 7 s, per JESD 22-B106

### 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. BR1510W).



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

PARAMETER	SYMBOL	UNIT	BR15005	BR1501	BR1502	BR1504	BR1506	BR1508	BR1510
Device marking code			BR15005	BR1501	BR1502	BR1504	BR1506	BR1508	BR1510
Repetitive Peak Reverse Voltage	VRRM	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	15						
Surge(Non-repetitive)Forward Current @60HZ Half-sine Wave, 1 cycle, T <sub>a</sub> =25°C	IFSM	A	300						
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	375						
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	BR15005	BR1501	BR1502	BR1504	BR1506	BR1508	BR1510
Maximum instantaneous forward voltage drop per diode	V <sub>FM</sub>	V	I <sub>FM</sub> =7.5A	1.1						
Maximum DC reverse current at rated DC blocking voltage per diode	I <sub>RRM</sub>	μA	V <sub>RM</sub> =VRRM	10						



# BR15005(W) THRU BR1510(W)

## ■ Thermal Characteristics ( $T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	BR15005	BR1501	BR1502	BR1504	BR1506	BR1508	BR1510
Thermal Resistance	Between junction and case, With heatsink	$R_{\theta J-C}$	$^\circ\text{C/W}$	3.3						

## ■ Ordering Information (Example)

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BR15005~BR1510	A1	Approximate 18.6	50	50	500	Paper Box
BR15005W~BR1510W	A1	Approximate 16.5	50	50	500	Paper Box

## ■ Characteristics (Typical)

FIG1:  $I_o$ - $T_c$  Curve

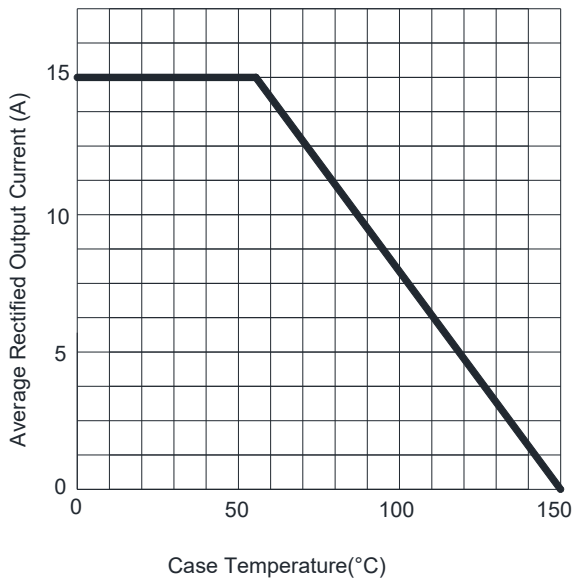


FIG2: Surge Forward Current Capability

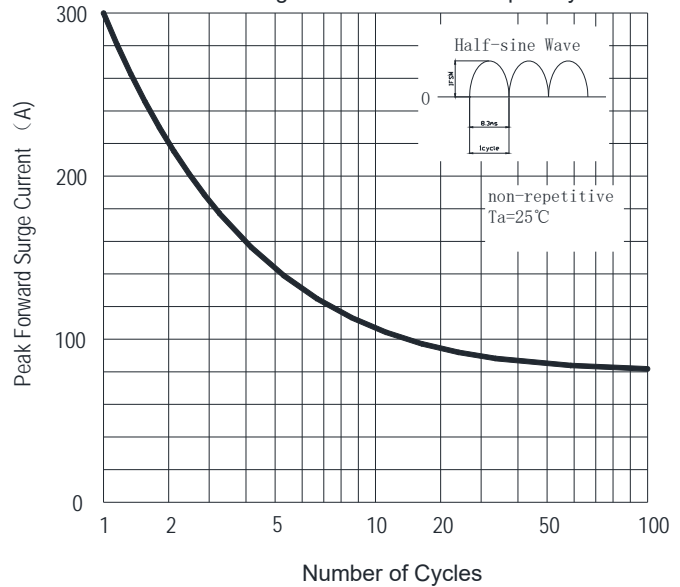


FIG3: Instantaneous Forward Voltage

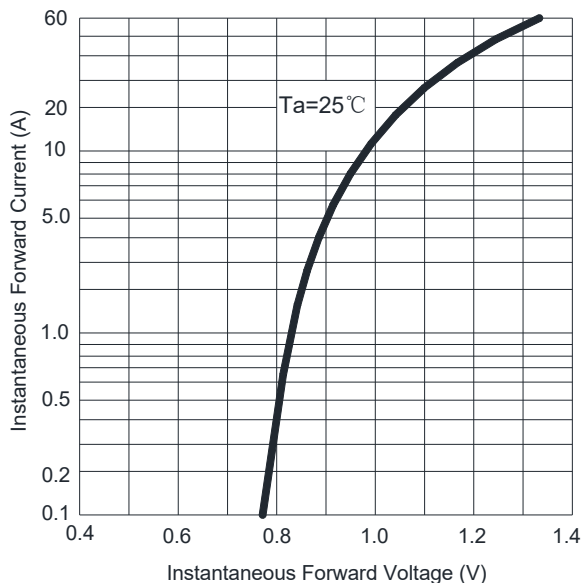
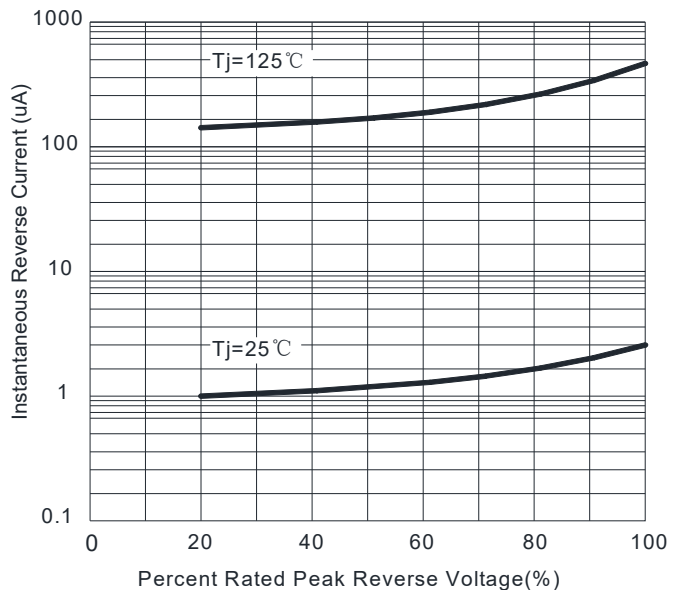


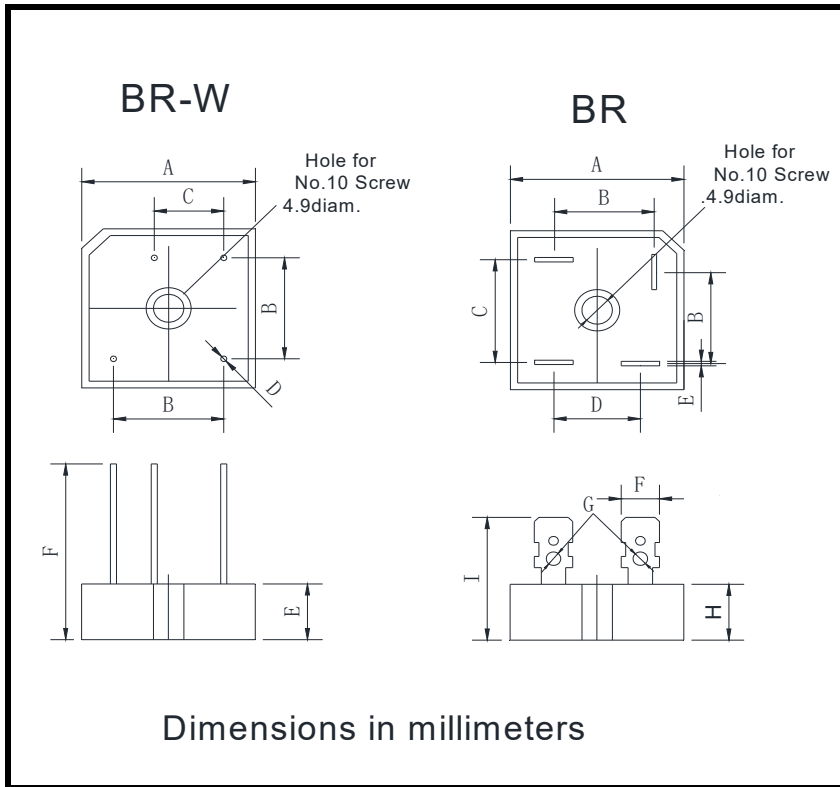
FIG4: Typical Reverse Characteristics





# BR15005(W) THRU BR1510(W)

## ■ 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	/



## BR15005(W) THRU BR1510(W)

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