

Bridge Rectifiers

Features

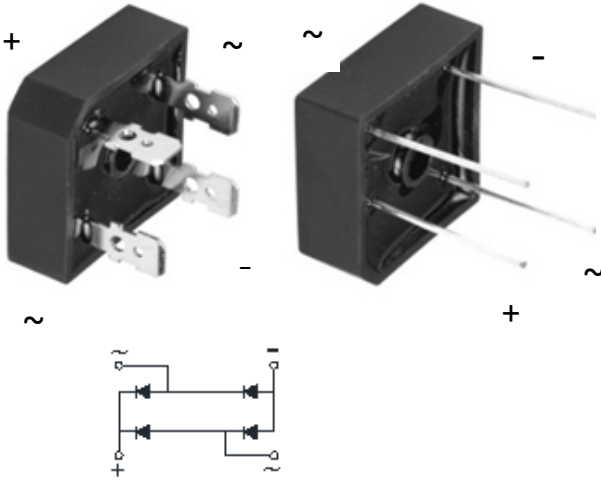
- UL recognition, file #E230084
Universal 3-way terminals: snap-on, wire wrap-around, or PCB mounting
- High surge current capability
- Low thermal resistance
- Solder dip 275 °C max. 7 s, per JESD 22-B106

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 ($T_a=25^\circ\text{C}$ 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	V_{RRM}	V	50	100	200	400	600	800	1000
Average Rectified Output Current @60Hz sine wave, R-load, With heatsink, $T_c=55^\circ\text{C}$	I_o	A	15						
Surge(Non-repetitive)Forward Current @60Hz Half-sine Wave, 1 cycle, $T_a=25^\circ\text{C}$	I_{FSM}	A	300						
Current Squared Time @1ms $\leq t \leq$ 8.3ms $T_j=25^\circ\text{C}$, Rating of per diode	I^2t	A ² S	375						
Storage Temperature	T_{stg}	$^\circ\text{C}$	-55 ~+150						
Junction Temperature	T_j	$^\circ\text{C}$	-55 ~+150						
Dielectric Strength, Terminals to case, AC 1 minute	V_{dis}	KV	2.5						
Mounting Torque	T_{OR}	N·m	2.0						

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	BR15005	BR1501	BR1502	BR1504	BR1506	BR1508	BR1510
Maximum instantaneous forward voltage drop per diode	V_{FM}	V	$I_{FM}=7.5\text{A}$	1.1						
Maximum DC reverse current at rated DC blocking voltage per diode	I_{RRM}	μA	$V_{RM}=V_{RRM}$	10						

■ 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	$R_{\theta J-C}$	$^\circ\text{C}/\text{W}$	3.3						



BR15005(W) THRU BR1510(W)

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:Io-Tc Curve

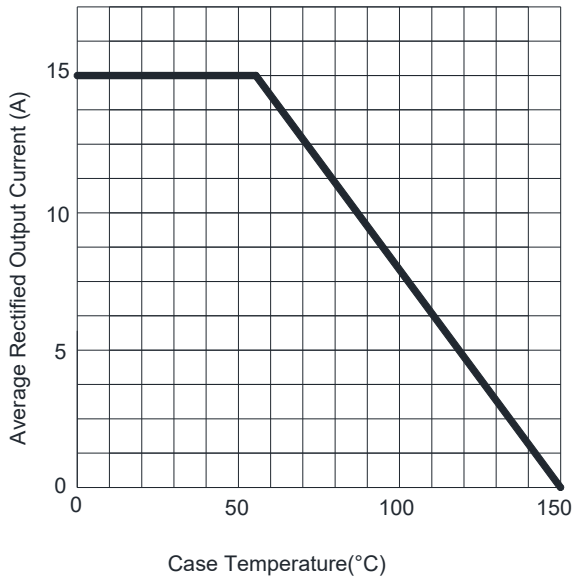


FIG2:Surge Forward Current Capability

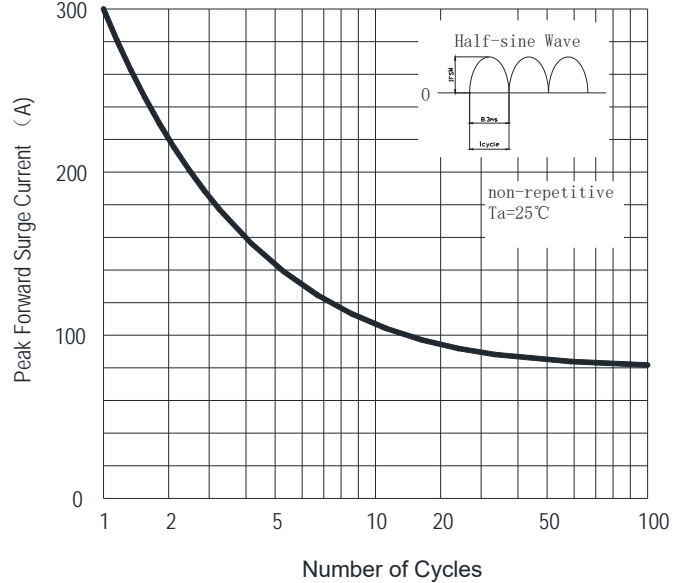


FIG3:Instantaneous Forward Voltage

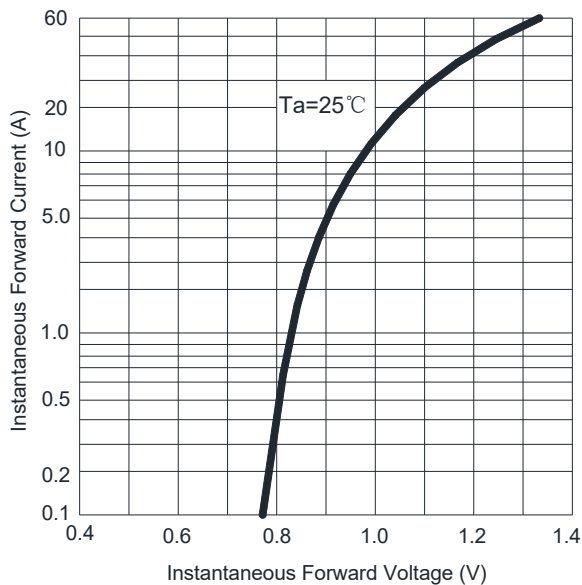
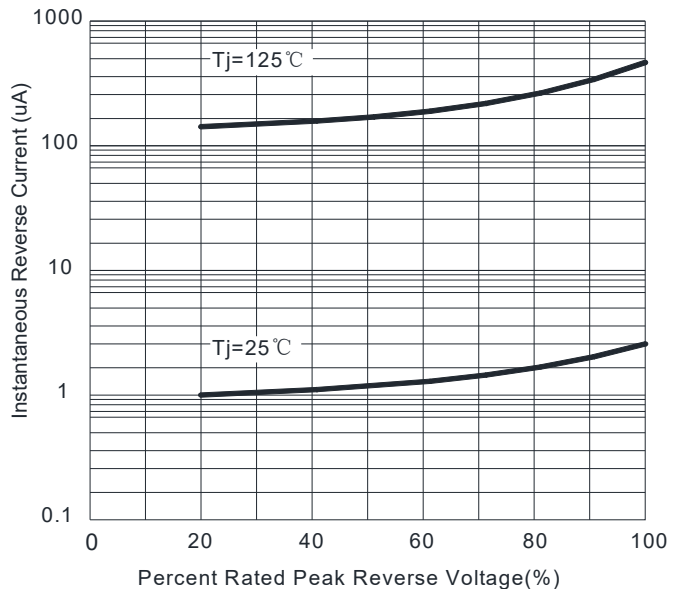


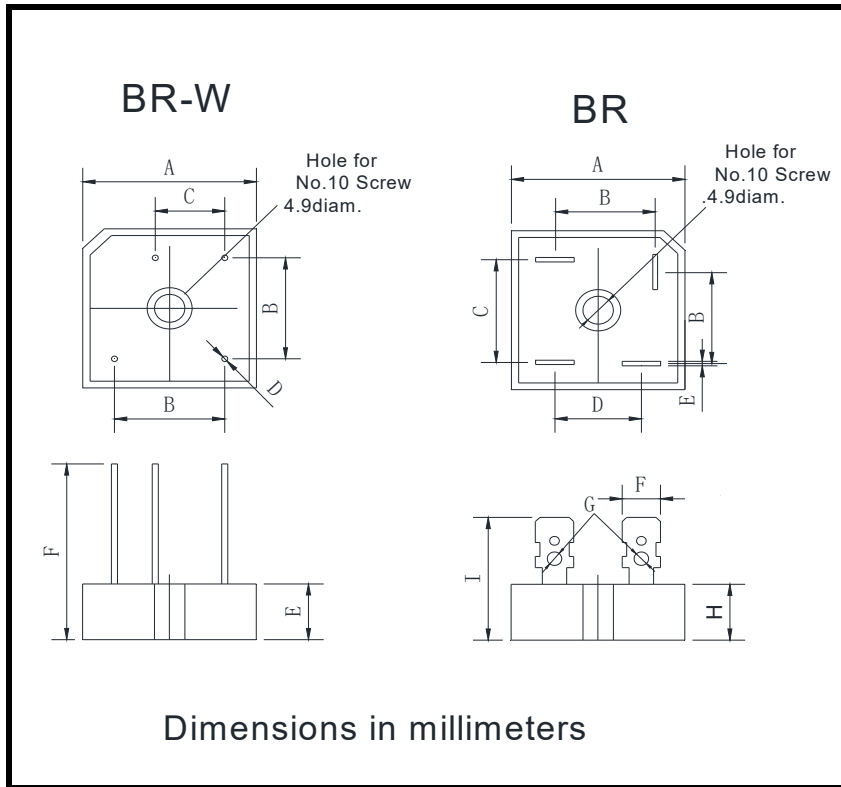
FIG4:Typical Reverse Characteristics





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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