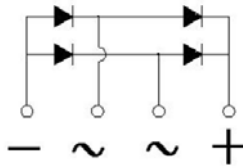


## Bridge Rectifiers



### Features

- UL recognition, file #E230084
- Universal 3-way terminals: snap-on, wire wrap-around, or PCB mounting
- Glass passivated chip junction
- High surge current capability
- 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-L  
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102

### ■ Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	BR50005L	BR5001L	BR5002L	BR5004L	BR5006L	BR5008L	BR5010L
Device marking code			BR50005L	BR5001L	BR5002L	BR5004L	BR5006L	BR5008L	BR5010L
Maximum Repetitive Peak Reverse Voltage	VRRM	V	50	100	200	400	600	800	1000
Maximum RMS Voltage	VRMS	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage	VDC	V	50	100	200	400	600	800	1000
Average rectified output current @60Hz sine wave, R-load, Tc =55°C	IO	A	50						
Forward Surge Current (Non-repetitive) @8.3ms, Half-sine wave, 1 cycle, Tj=25°C	IFSM	A	500						
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25°C			1000						
Current squared time @1ms≤t≤8.3ms Tj=25°C, Rating of per diode	I <sup>2</sup> t	A <sup>2</sup> S	1038						
Storage temperature	Tstg	°C	-55 ~ +150						
Junction temperature	Tj	°C	-55 ~ +150						
Dielectric strength @ Terminals to case, AC 1 minute	Vdis	KV	2.5						
Mounting torque @Recommend torque: 5kg·cm	Tor	kg·cm	8						



# BR50005L THRU BR5010L

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	BR50005L	BR5001L	BR5002L	BR5004L	BR5006L	BR5008L	BR5010L	
Maximum instantaneous forward voltage drop per diode	VF	V	IFM=25A								1.1
Maximum DC reverse current at rated DC blocking voltage per diode	IR	μA	T <sub>j</sub> =25°C								5
			T <sub>j</sub> =125°C								100
Typical junction capacitance	C <sub>j</sub>	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C								155

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

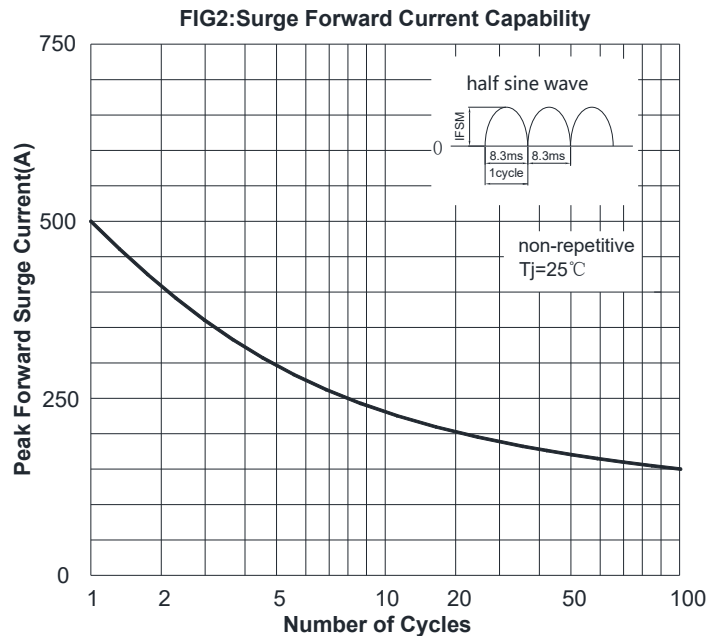
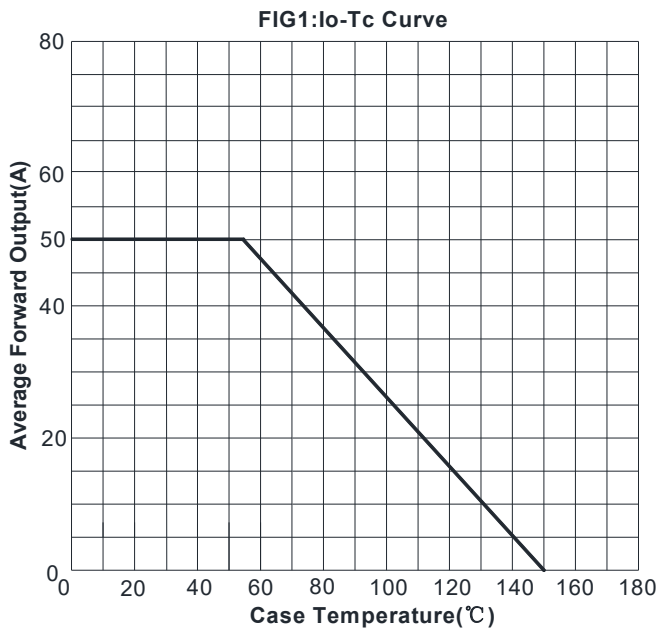
PARAMETER	SYMBOL	UNIT	BR50005L	BR5001L	BR5002L	BR5004L	BR5006L	BR5008L	BR5010L	
Thermal Resistance Between junction and case, With heatsink	R <sub>θJ-C</sub>	°C/W								1.2

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

## ■ Ordering Information (Example)

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT (g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BR50005L ~ BR5010L	A1	Approximate 17.1	60	60	600	Paper Box

## ■ Characteristics (Typical)





# BR50005L THRU BR5010L

FIG3: Typical Forward Voltage

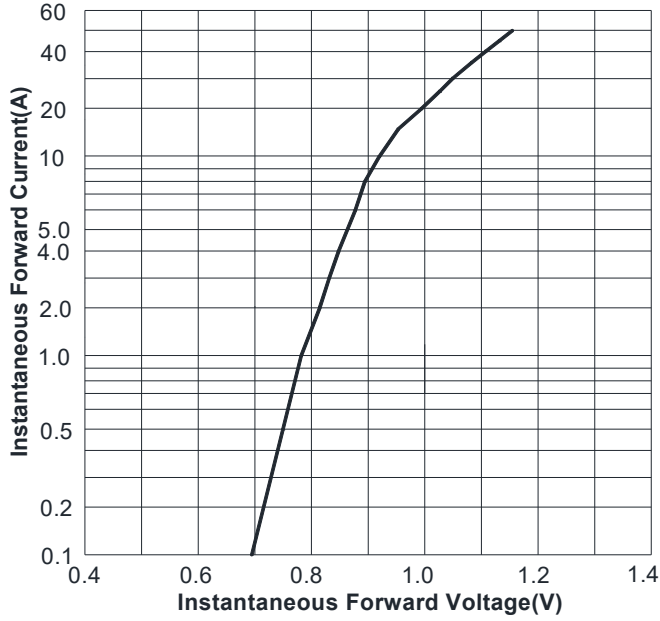
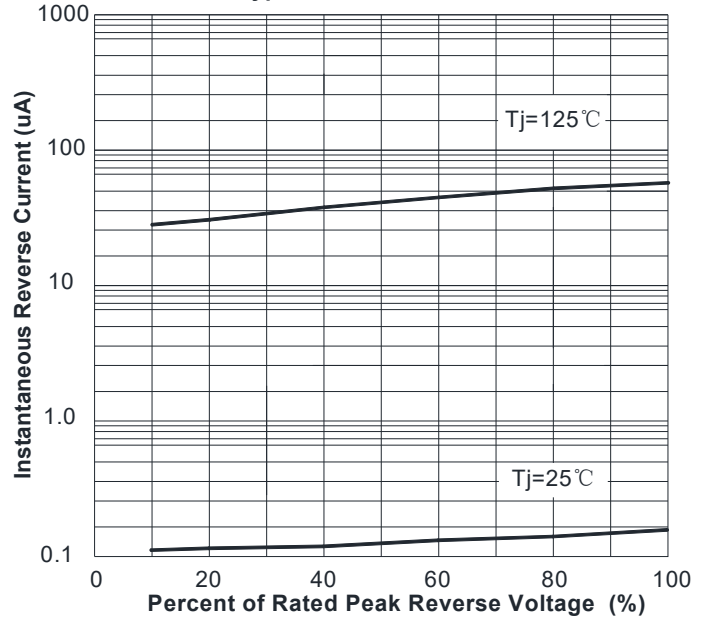
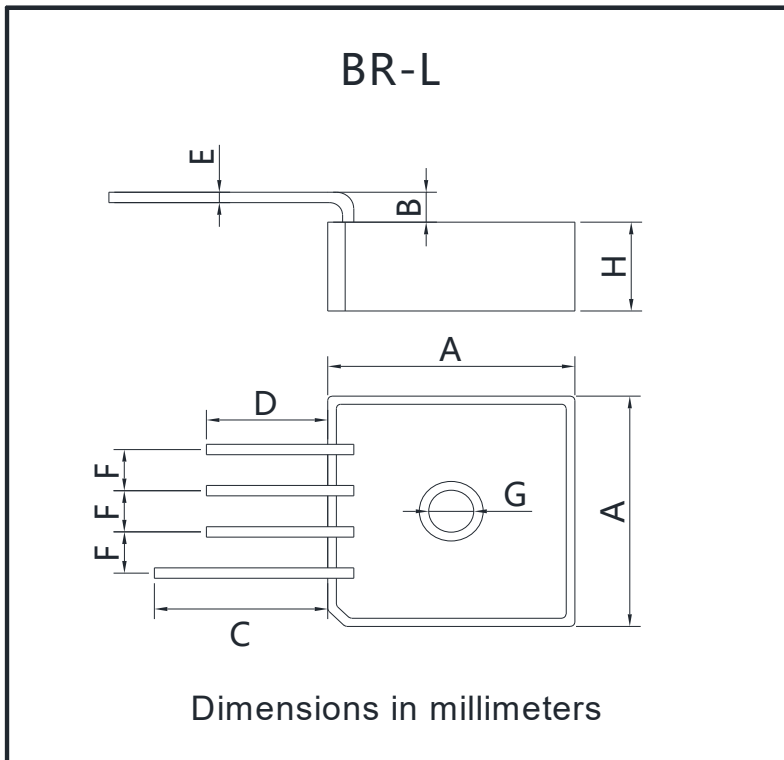


FIG4: Typical Reverse Characteristics



## ■ Outline Dimensions



BR-L		
Dim	Min	Max
A	28.2	28.8
B	3.0	4.5
C	19.1	/
D	13.9	/
E	1.23	1.33
F	4.6	5.6
G	4.5	5.5
H	10.8	11.2



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