

**SINGLE-PHASE SILICON BRIDGE RECTIFIER**

**VOLTAGE RANGE 50 to 1000 Volts CURRENT 10 Amperes**

**FEATURES**

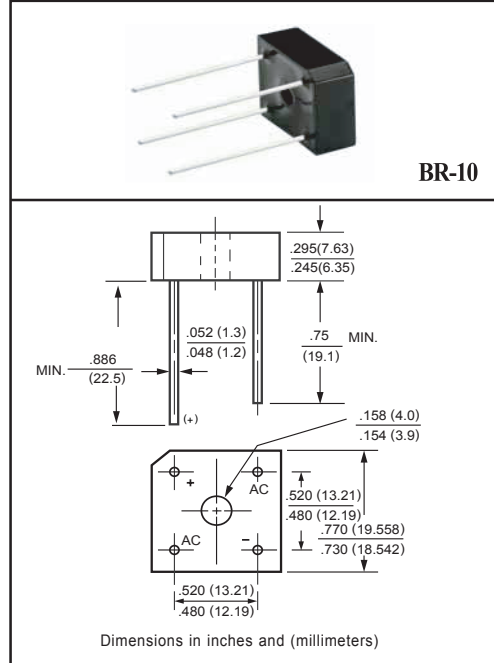
- \* Surge overload rating: 200 amperes peak
- \* Low forward voltage drop

**MECHANICAL DATA**

- \* UL listed the recognized component directory, file #E94233
- \* Epoxy: Device has UL flammability classification 94V-0
- \* Lead: Mil-STD-202E method 208C guaranteed
- \* Mounting position: Any
- \* Weight: 7.86 grams
- \* Mounting: Hole thru for # 6 screw

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.  
Single phase, half wave, 60 Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.



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

RATINGS	SYMBOL	BR1005	BR101	BR102	BR104	BR106	BR108	BR1010	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Output Current at: $T_c = 50^\circ\text{C}$ $T_c = 100^\circ\text{C}$ $T_A = 50^\circ\text{C}$	$I_O$	10.0							Amps
		6.0							
		6.0							
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	200							Amps
Typical Current Squared Time	$I^2T$	166							$\text{A}^2\text{S}$
Typical Thermal Resistance (Note 1)	$R_{\theta JC}$	7.3							$^\circ\text{C}/\text{W}$
	$R_{\theta JA}$	28							
Operating Temperature Range	$T_J$	-55 to + 150							$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to + 150							$^\circ\text{C}$

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

CHARACTERISTICS	SYMBOL	BR1005	BR101	BR102	BR104	BR106	BR108	BR1010	UNITS
Maximum Forward Voltage Drop per element at 5.0A DC	$V_F$	1.0							Volts
Maximum Reverse Current at Rated DC Blocking Voltage per element	@ $T_A = 25^\circ\text{C}$	5.0							uAmps
	@ $T_c = 100^\circ\text{C}$	0.2							
									mAmps

NOTES : 1. Thermal Resistance : Mounted on PCB.  
2. "RoHS compliant"

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## RATING AND CHARACTERISTIC CURVES( BR1005 THRU BR1010)

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

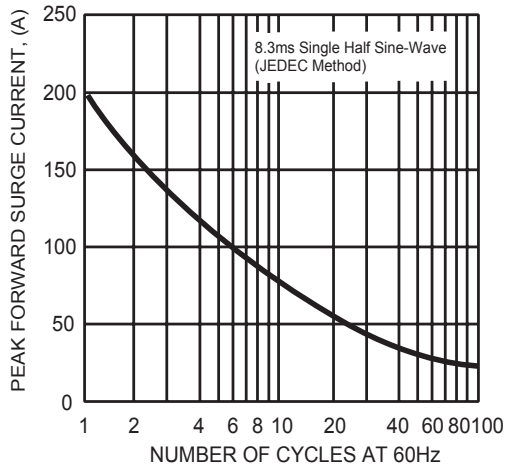


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

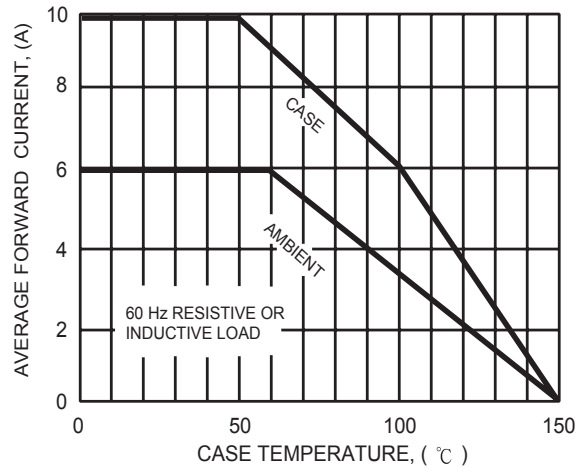


FIG. 3- MAXIMUM INSTANTANEOUS FORWARD CHARACTERISTICS

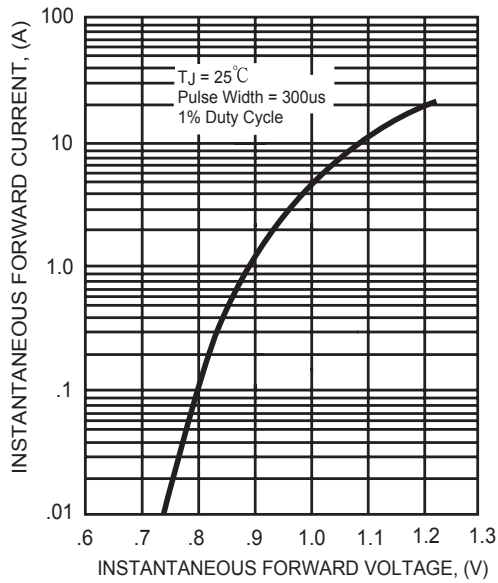
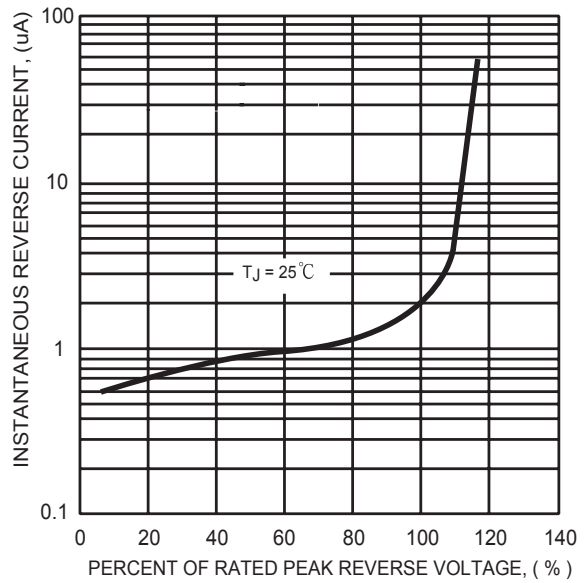


FIG. 4 - MAXIMUM REVERSE CHARACTERISTICS

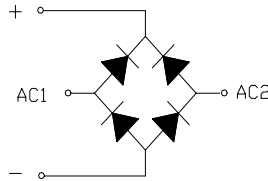




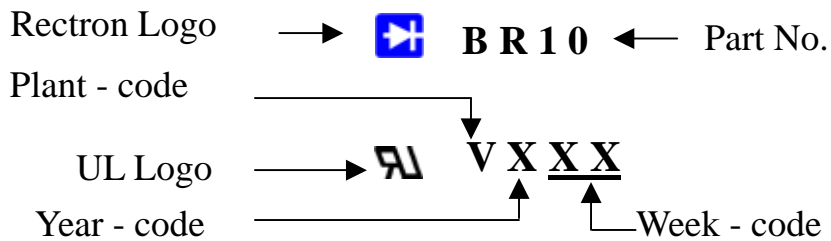
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## Attachment information about BR10X

### 1. Internal Circuit



### 2. Marking on the body



### 3. Items marked on the inner box and carton

#### 3.1 On the box (for -B)

**CUSTOMER**  
**TYPE**  
**LOT NO.**  
**QUANTITY**  
**Q.A.**  
**DATE**

#### 3.2 On the carton

**CUSTOMER**  
**TYPE**  
**QUANTITY**  
**LOT NO.**  
**REMARK**

## PACKAGING OF DIODE AND BRIDGE RECTIFIERS

### BULK PACK

PACKAGE	PACKING CODE	EA PER BOX	INNER BOX SIZE (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
BR-8/-10	-B	200	236*236*50	497*251*282	1,600	9.80

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