RECTRON SEMICONDUCTOR
TECHNICAL SPECIFICATION

BR305 THRU BR310

SINGLE-PHASE SILICON BRIDGE RECTIFIER

VOLTAGE RANGE 50 to 1000 Volts CURRENT 3.0 Amperes

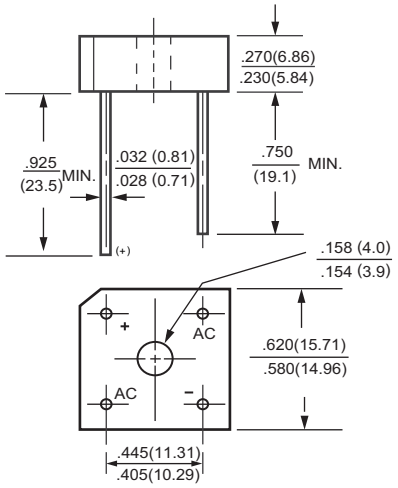
FEATURES

*Surge overload rating: 50 amperes peak
* Low forward voltage drop

MECHANICAL DATA

* UL listed the recognized component directory, file #E94233
* Epoxy: Device has UL flammability classification 94V-O
* Lead: Mil-STD-202E method 208C guaranteed
* Mounting position: Any

BR-3



Dimensions in inches and (millimeters)

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°C unless otherwise noted)

RATINGS	SYMBOL	BR305	BR31	BR32	BR34	BR36	BR38	BR310	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 Tc = 50°C	I_O	3.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	50							Amps
Current Squarad Time	I^2t	10.3							A^2/Sec
Operating Temperature Range	T_J	-55 to + 150							°C
Storage Temperature Range	T_{STG}	-55 to + 150							°C

ELECTRICAL CHARACTERISTICS (At T_A = 25°C unless otherwise noted)

CHARACTERISTICS		SYMBOL	BR305	BR31	BR32	BR34	BR36	BR38	BR310	UNITS
Maximum Forward Voltage Drop per element at 1.5A DC		V_F	1.0							Volts
Maximum Reverse Current at Rated	@T_A = 25°C	I_R	5.0							uAmps
DC Blocking Voltage per element	@Tc = 100°C		200							

NOTES : 1. Thermal Resistance : Mounted on PCB.
2. " RoHS compliant"
3. Available in Halogen-free epoxy by adding suffix -HF after the part nbr.

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RATING AND CHARACTERISTIC CURVES(BR305 THRU BR310)

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

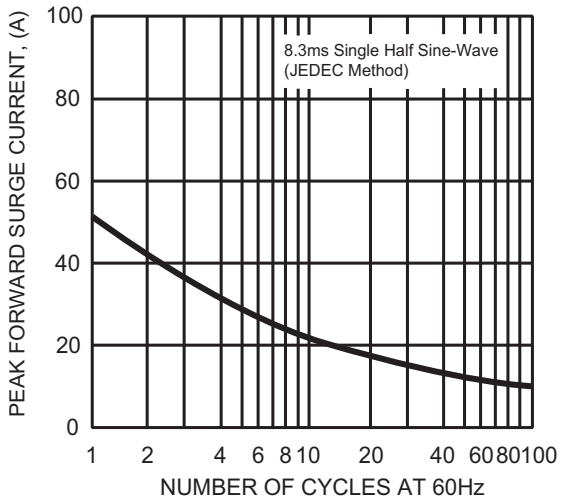


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

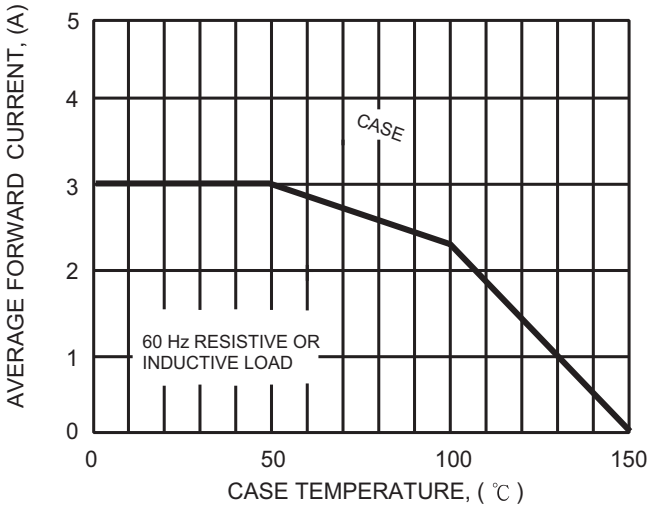


FIG. 3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

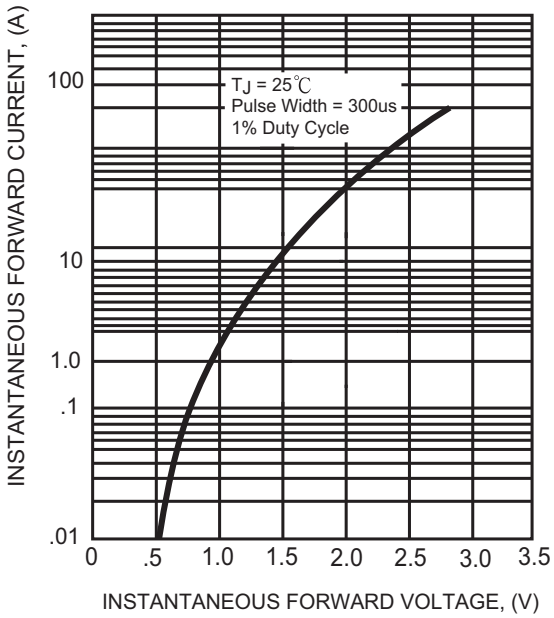
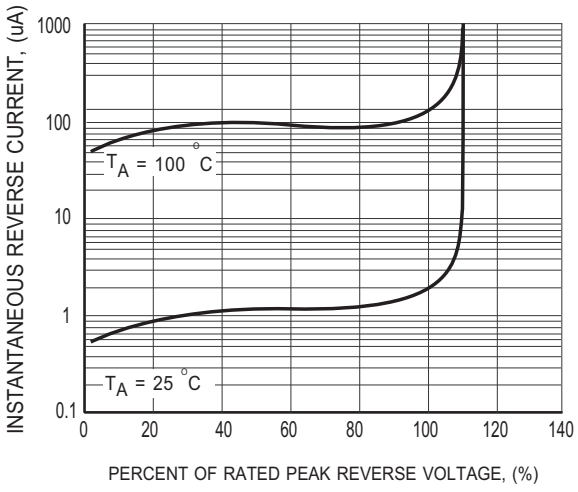


FIG. 4- TYPICAL REVERSE CHARACTERISTICS



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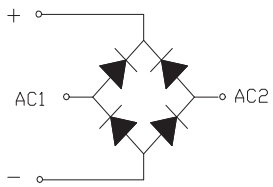
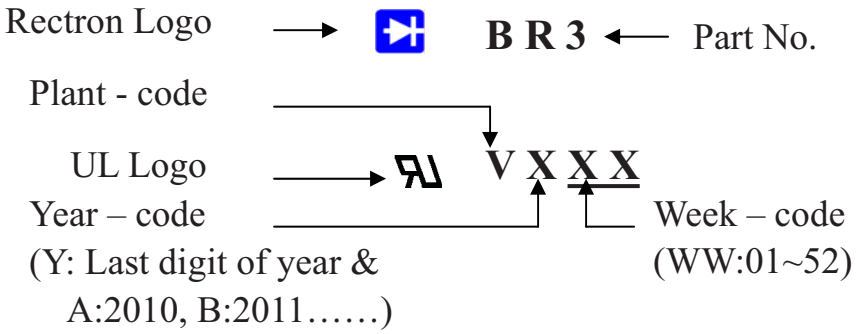
Attachment information about BR3X

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-3/-6	-B	200	206*208*55	450*220*255	2,000	7.50/8.50

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