RECTRON
SEMICONDUCTOR
TECHNICAL SPECIFICATION

RBU801M THRU RBU807M

SINGLE-PHASE GLASS PASSIVATED SILICON BRIDGE RECTIFIER

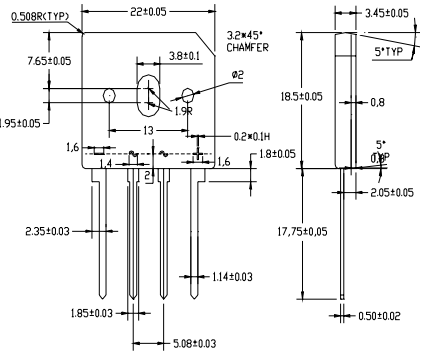
VOLTAGE RANGE 50 to 1000 Volts CURRENT 8.0 Amperes

FEATURES

* Low leakage
* Low forward voltage
* Mounting position: Any
* Surge overload rating: 200 amperes peak
* Ideal for printed circuit boards
* High forward surge current capability

MECHANICAL DATA

* UL listed the recognized component directory, file #E94233
* Epoxy: Device has UL flammability classification 94V-O



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	RBU801M	RBU802M	RBU803M	RBU804M	RBU805M	RBU806M	RBU807M	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Bridge Input 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 Tc = 75°C	I_O	8.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	200							Amps
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	26							°C/W
	$R_{\theta JC}$	3.4							
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to + 150							°C

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

CHARACTERISTICS		SYMBOL	RBU801M	RBU802M	RBU803M	RBU804M	RBU805M	RBU806M	RBU807M	UNITS
Maximum Forward Voltage Drop per element at 8.0A DC		V_F	1.2							Volts
Maximum Reverse Current at Rated DC Blocking Voltage per element	@T_A = 25°C	I_R	5.0							uAmps
	@T_A = 125°C		0.5							mAmps

NOTE: 1. Units mounted in free air, no heatsink on P.C.B., 0.5x0.5" (12x12mm) copper pads, 0.375" lead length.
2. "Fully ROHS compliant", "100% Sn plating (Pb-free)".

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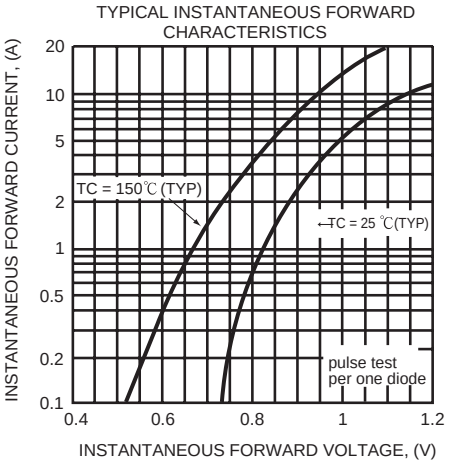
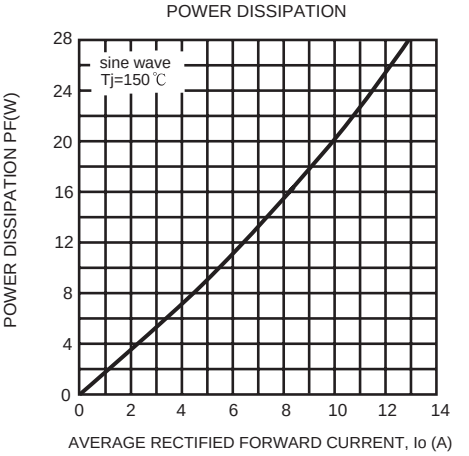
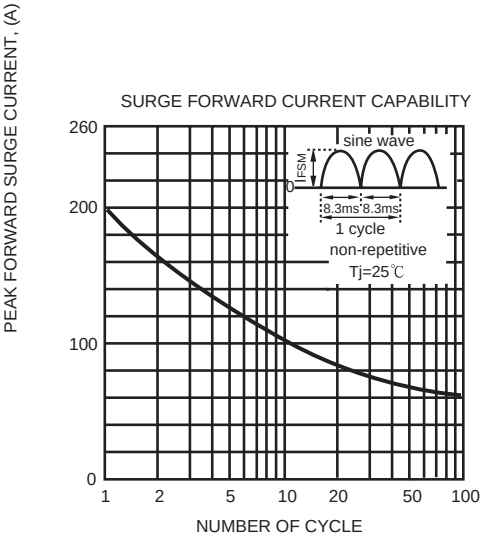
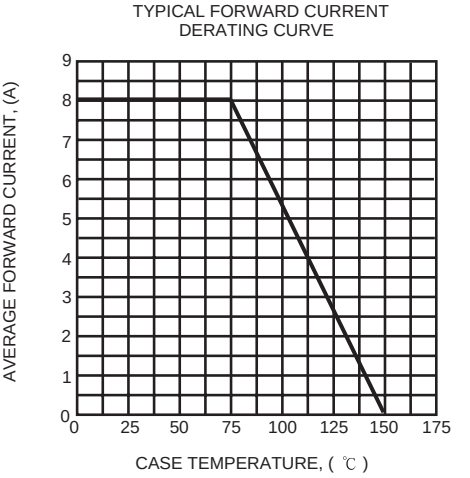
REV: A

RATING AND CHARACTERISTIC CURVES (RBU801M-RBU807M)