COMON SEMICONDUCTOR

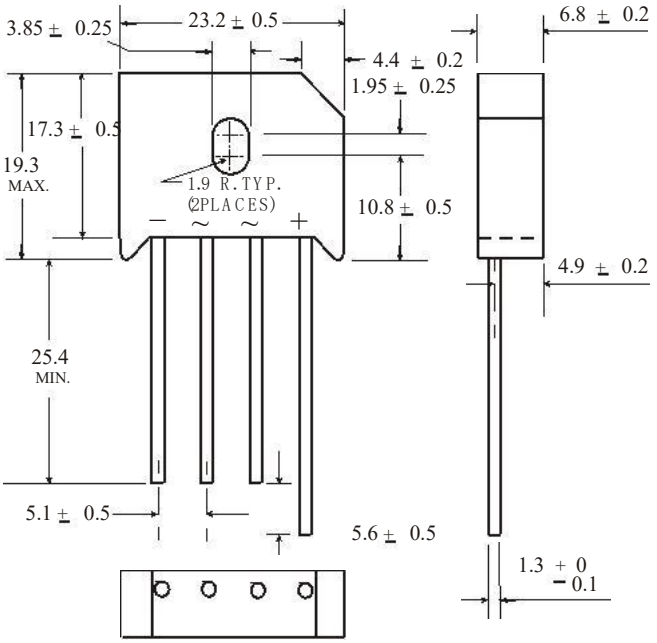
RS8005 thru RS810

8.0 A Single-Phase GPP Bridge Rectifier

Rectifier Reverse Voltage 50 to 1000V

Features

- Single In-Line terminals array suitable for P.C. board mounting
- Surge overload ratings to 250 amperes peak
- The plastic material used carries Underwriters Laboratory flammability recognition 94V-0
- High temperature soldering guaranteed 265°C/10 seconds/.375"(9.5mm) lead length at 5 lbs (2.3kg) tension



Dimensions in millimeters(1mm =0.0394)

Mechanical Data

Case: Molded plastic
Terminals: Plated wire leads solderable per MIL-STD-202,Method 208
Mounting Position: Any
Mounting Torque: 5 in-lb maximum
Weight: 0.3 ounce, 8 grams (approx)

Maximum Ratings & Thermal Characteristics

Rating at 25°C ambient temperature unless otherwise specified, Resistive or Inductive load, 60 Hz.
For Capacitive load derate current by 20%.

Parameter	Symbol	RS8005	RS801	RS802	RS804	RS806	RS808	RS810	unit
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS bridge input voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	V
Maximum average forward rectified output current at TC=100℃ / TC=45℃	IF(AV)	8.0 / 4.0							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	IFSM	250							A
Rating for fusing (t<8.3ms)	I^2t	300							A^2sec
Typical thermal resistance per element (1)	ReJA	2.5							℃ / W
Operating junction and storage temperature range	TJ, TSTG	-55 to + 150							℃

Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz.
For Capacitive load derate by 20 %.

Parameter	Symbol	RS8005	RS801	RS802	RS804	RS806	RS808	RS810	Unit
Maximum instantaneous forward voltage drop per leg at 6.0A	VF	1.1							V
Maximum DC reverse current at rated DC blocking voltage per element TA =25℃ / TA =125℃	IR	10 / 1000							μA

Notes: (1)Thermal resistance from Junction to Ambemt on P.C.board mounting.

Rating and Characteristic Curves (TA= 25℃ Unless otherwise noted)
RS8005 thru RS810

Fig. 1 Derating Curve for Output Rectified Current

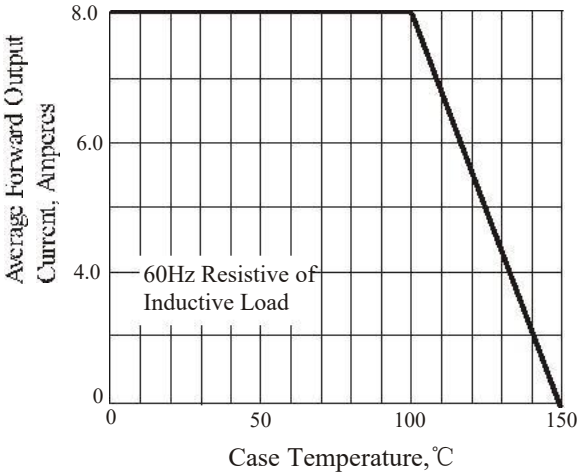


Fig. 2 Maximum Non-repetitive Peak Forward Surge Current

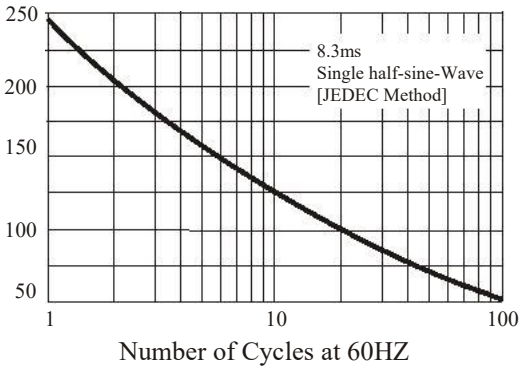


Fig. 3 Typical Instantaneous Forward Characteristics

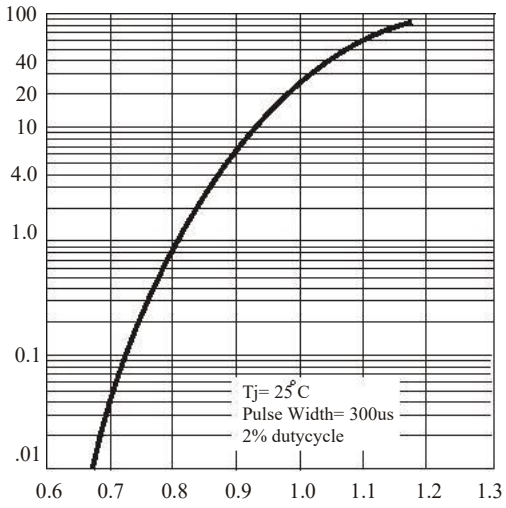


Fig. 4 Typical Reverse Characteristics

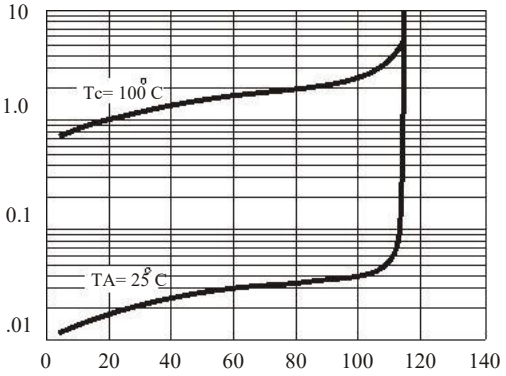


Fig. 5 Typical Junction Capacitance