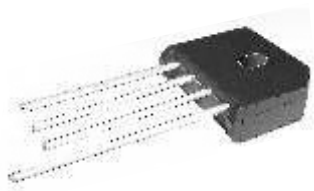




## 10.0 A Single-Phase Silicon Bridge Rectifiers

Rectifier Reverse Voltage 50 to 1000V



### Features

- Single In-Line terminals array suitable for P.C. board mounting
- Surge overload ratings to 300 amperes peak
- This series is UL listed under the Recognized Component Index, file number E142814
- 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

### Mechanical Data

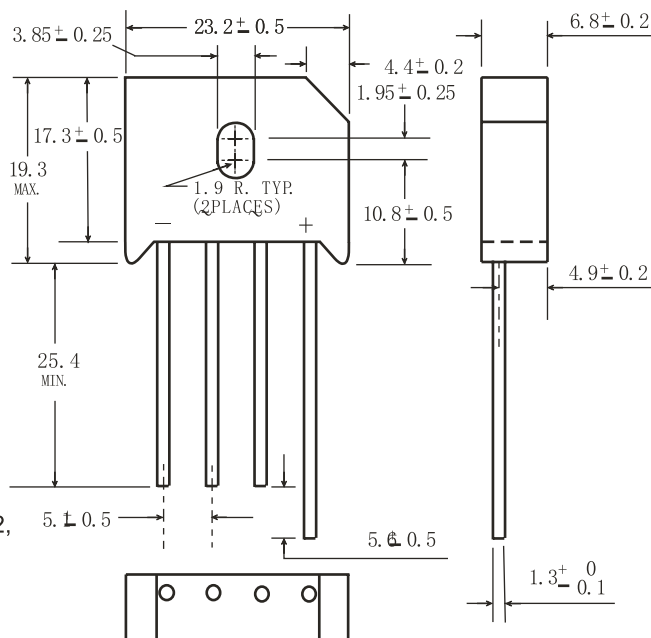
Case: Molded plastic

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)



Dimensions in millimeters(1mm = 0.0394")

### 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	RS10005	RS1001	RS1002	RS1004	RS1006	RS1008	RS1010	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°C	IF(AV)	10							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	IFSM	300							A
Rating for fusing ( t<8.3ms)	I <sup>2</sup> t	373							A <sup>2</sup> sec
Typical thermal resistance per element (1)	ReJA	4.5							°C / W
Operating junction and storage temperature range	TJ, TSTG	-55 to + 150							°C

### Electrical Characteristics

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

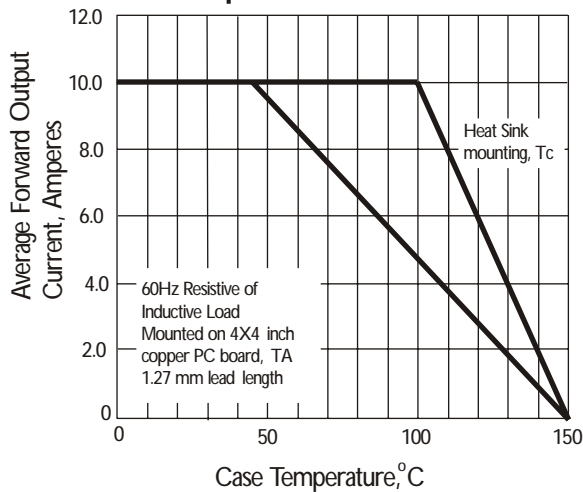
Parameter	Symbol	RS10005	RS1001	RS1002	RS1004	RS1006	RS1008	RS1010	Unit
Maximum instantaneous forward voltage drop per leg at 10.0A	VF	1.1							V
Maximum DC reverse current at rated TA =25°C DC blocking voltage per element TA =125°C	IR	10 1000							μA

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

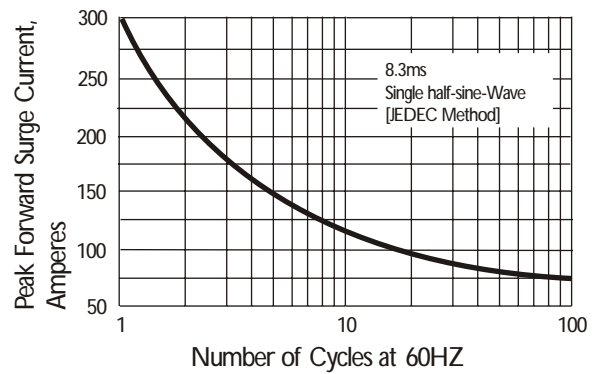
## Rating and Characteristic Curves ( $T_A=25^{\circ}\text{C}$ Unless otherwise noted )

### RS10005 thru RS1010

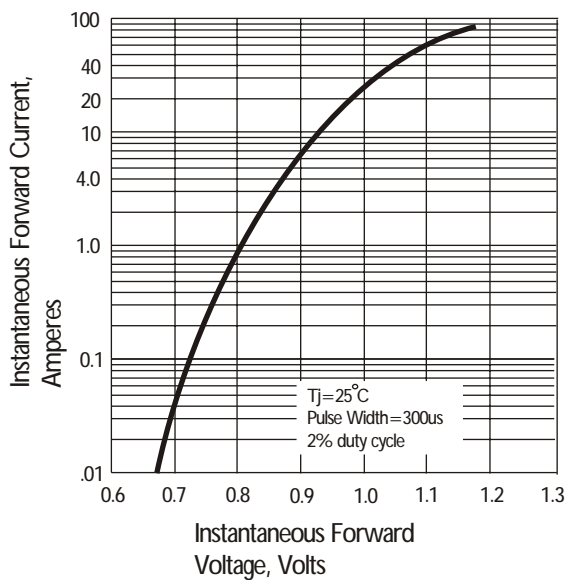
**Fig. 1 Derating Curve for Output Rectified Current**



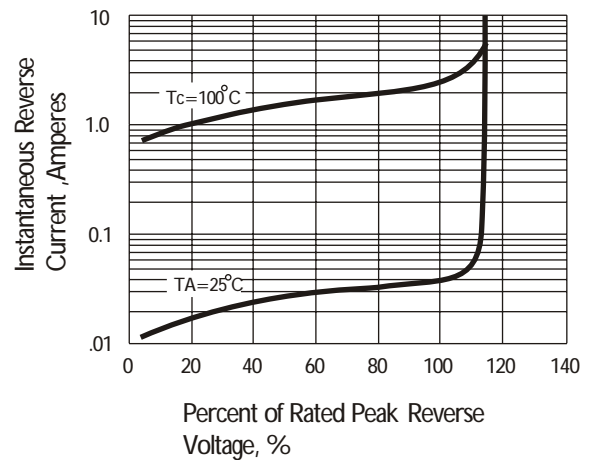
**Fig. 2 Maximum Non-repetitive Peak Forward Surge Current**



**Fig. 3 Typical Instantaneous Forward Characteristics**



**Fig. 4 Typical Reverse Characteristics**



**Fig. 5 Typical Junction Capacitance**

