

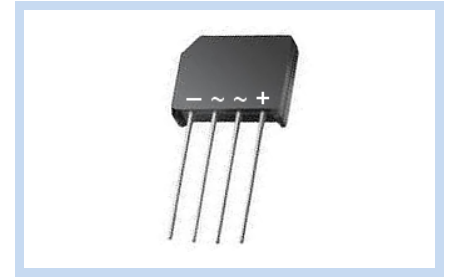
Single-Phase Bridge Rectifier 5.0A RS5 Package

RS5 Series

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FEATURE

- Operating Temperature: -55 ~ +150°C
- Average Forward Rectified Output Current 5.0A
- Repetitive Reverse Voltage from 50~1000V
- Surge Overload Ratings to 200A
- Flammability Classification 94V-0
- UL Safety Approved: Certification No: E223027



MAXIMUM RATINGS AND THERMAL CHARACTERISTICS

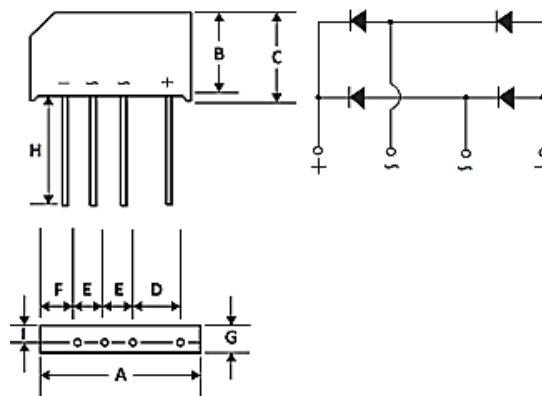


Parameter	Code	RS 501	RS 502	RS 503	RS 504	RS 505	RS 506	RS 507	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Bridge Input Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Output Current	I_F	5.0, $T_A=50^\circ\text{C}$							A
Peak Forward Surge Current Single Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	200							A
Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	10							A^2sec
Maximum Instantaneous Forward Voltage Drop per Diode	V_F	1.1, $I_F=5.0\text{A}$							V
Maximum DC Reverse Current at Rated DC Blocking Voltage per Element	I_R	10, $T_A=25^\circ\text{C}$							μA
	I_R	500, $T_A=100^\circ\text{C}$							μA
Typical Junction Capacitance per Element	C_J	24.0							pF
Operating Junction and Storage Temperature	T_J, T_{STG}	-55~150							$^\circ\text{C}$
Typical Thermal Resistance per Element	$R_{\theta JA}$	50							$^\circ\text{C/W}$

- Note:
1. Rating at 25°C ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz. For Capacitive load derate current by 20%.
 2. Thermal resistance from Junction to Ambient on P.C. board mounting.
 3. Measured at 2.0MHz and applied reverse voltage of 4.0 volts.

DIMENSION AND PIN CONFIGURATION

Item	Min. (mm)	Max. (mm)
A	39.40	40.10
B	20.20	21.00
C	20.90	21.70
D	9.80	10.20
E	7.20	7.60
F	8.80	9.20
G	6.20	6.70
H	25.40	-
I	4.60	5.00



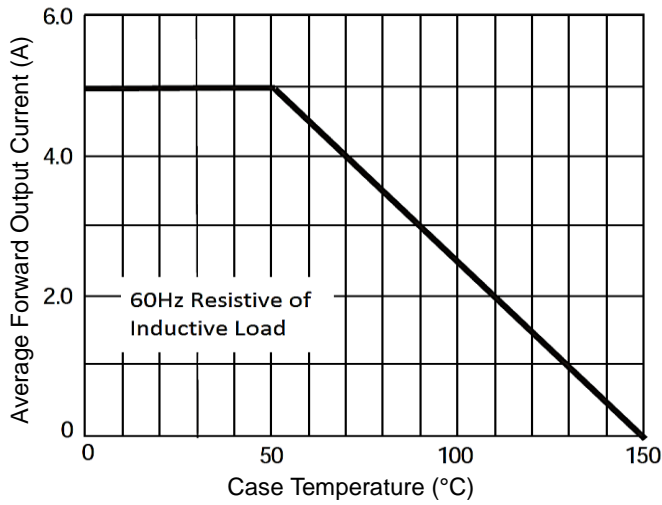
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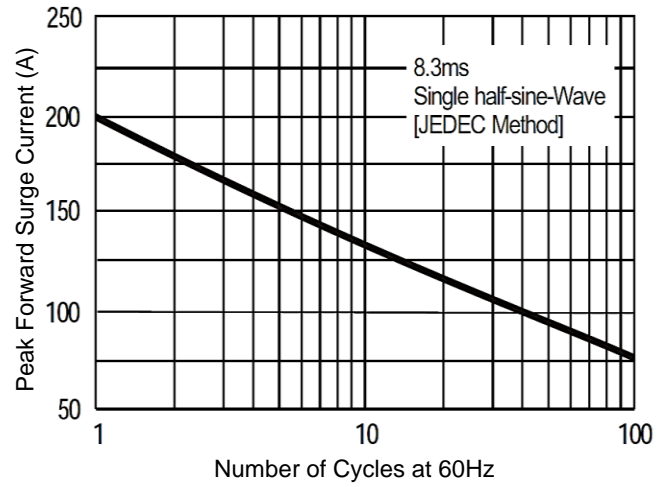
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RATING AND CHARACTERISTIC CURVES

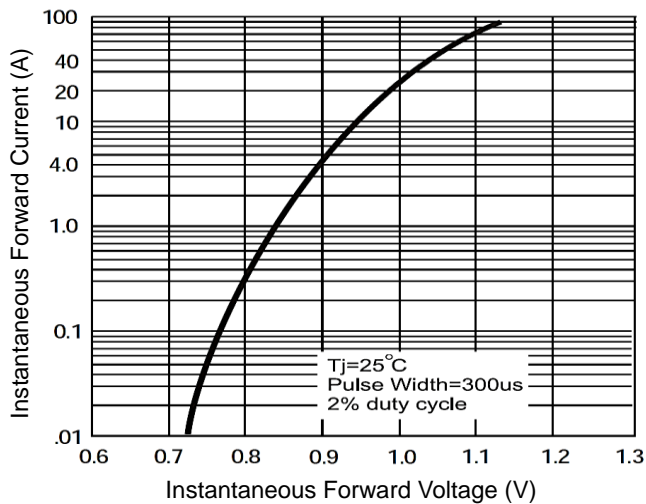
Derating Curve for Output Rectified Current



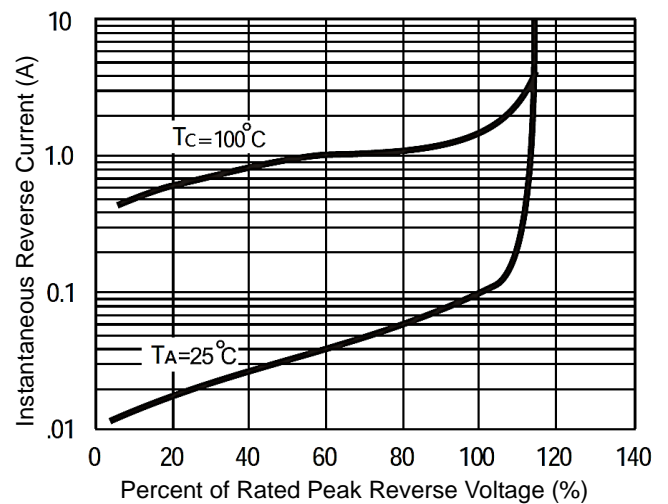
Maximum Non-Repetitive Peak Forward Surge Current



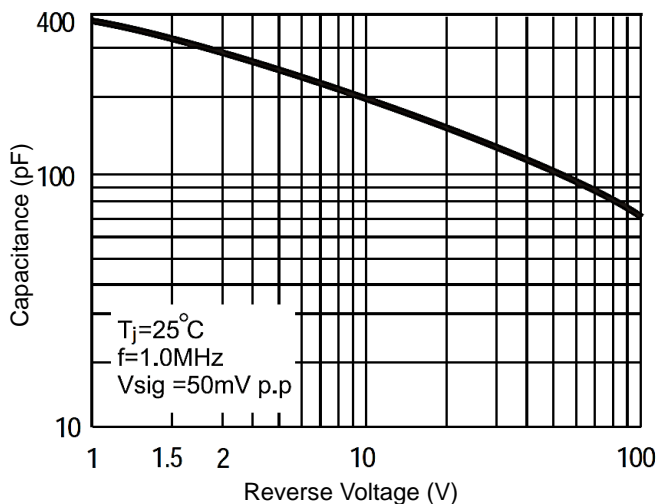
Typical Instantaneous Forward Characteristics



Typical Reverse Characteristics at $T_j = 25^\circ\text{C}$



Typical Junction Capacitance



*Specifications subject to change without notice.