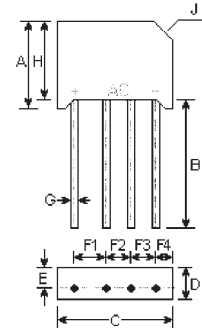


## Features

- Plastic material used carries Underwriters Laboratory recognition 94V-0
- High surge current capability
- Ideal for printed circuit board
- Typical  $I_R$  less than  $1 \mu A$
- Built-in printed board stand offs
- High temperature soldering guaranteed:  $250^\circ C$  for 5 seconds

**RS-5**



## Mechanical Data

- **Case:** Reliable low cost construction utilizing molded plastic technique
- **Terminals:** Leads solderable per MIL-STD-202, method 208
- **Mounting Position:** Any
- **Weight:** 0.92 ounce, 25.3 grams

DIM	DIMENSIONS				Note
	Min	Max	Min	Max	
A	0.825	0.850	2.10	2.17	
B	1.0	1.05	25.4	25.7	
C	1.550	1.560	39.4	40.1	
D	0.180	0.195	4.6	5.0	
E	0.240	0.240	6.2	6.2	
F1	0.395	0.400	9.9	10.2	
F2	0.285	0.300	7.2	7.6	
F3	0.285	0.300	7.2	7.6	
F4	0.240	0.240	6.2	6.2	
G	0.925	0.940	23.7	24.1	1
H	0.795	0.820	20.2	21.0	
J	0.100 (0.8125)				

## Maximum Ratings and Electrical Characteristics

Ratings at  $25^\circ C$  ambient temperature unless otherwise specified. resistive or inductive load at 50Hz or 60Hz.

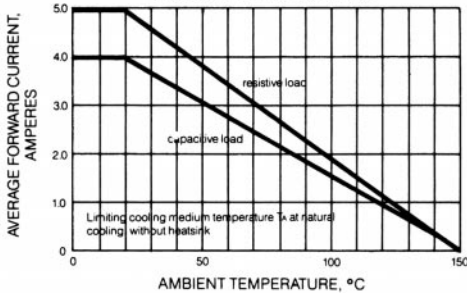
	Symbols	RS501	RS502	RS503	RS504	RS505	RS506	RS507	Units
Maximum repetitive peak reverse voltage	$V_{RRM}$	65	125	200	400	600	800	1000	Volts
Maximum RMS input voltage R + C-Load	$V_{RMS}$	40	80	125	250	380	500	630	Volts
Maximum DC blocking voltage <sup>1)</sup>	$V_{DC}$	65	125	200	400	600	800	1000	Volts
Maximum non-repetitive peak reverse voltage <sup>1)</sup>	$V_{RSM}$	100	190	300	600	900	1200	1500	Volts
Maximum average forward output current $I_{FAVM}$ natural cooling, $T_A=45^\circ C$ C-Load R+L-Load on chassis=31in <sup>2</sup> , 200cm <sup>2</sup> ; $T_A=45^\circ C$ C-Load R+L-Load	$I_{(AV)}$				3.3 4.0				Amps
Maximum repetitive peak forward surge current	$I_{FRM}$				30.0				APK
Peak surge forward current single sine-wave on rated load $T_J=25^\circ C$ $T_J=150^\circ C$	$I_{FSM}$				250 200				APK
I <sup>2</sup> t Rating for fusing ( $t > 8.3mS$ ) $T_J=25^\circ C$ $T_J=150^\circ C$	I <sup>2</sup> t				312 200				A <sup>2</sup> S A <sup>2</sup> S
Minimum series resistance at $V_{RMS}$	R	0.15	0.3	0.6	1.2	1.8			OHM
Maximum reservoir capacitor	C	10000	5000	5000	2500	1000			$\mu F$
Maximum reverse current at rated repetitive peak voltage $T_J=25^\circ C$ $T_J=150^\circ C$	$I_R$				10 6.0				$\mu A$ mA
Maximum instantaneous forward voltage drop per element at 5.0A	$V_F$				1.1				VPK
Operating and storage temperature range	$T_J, T_{STG}$				-55 to +150				$^\circ C$

Note:

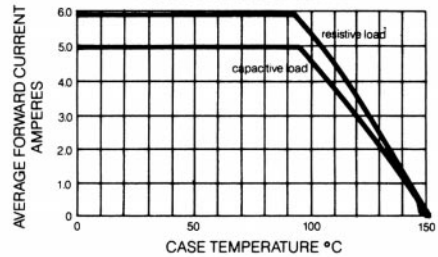
(1) Valid for each bridge element

# RATINGS AND CHARACTERISTIC CURVES

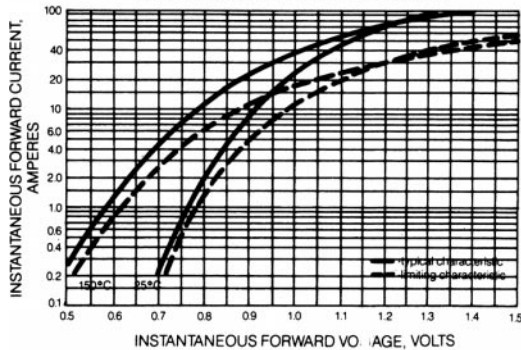
**FIG. 1 — DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



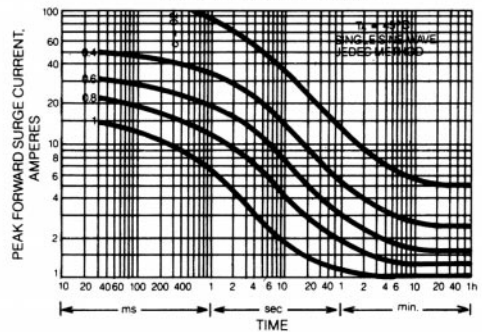
**FIG. 2 — DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



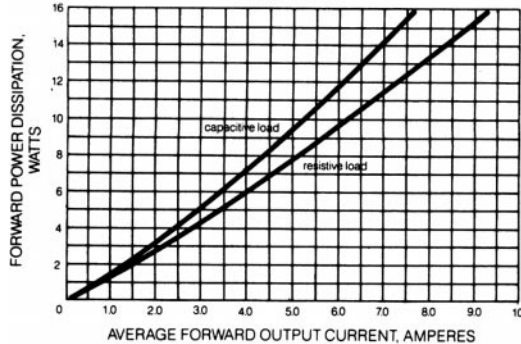
**FIG. 3 — TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC PER BRIDGE ELEMENT**



**FIG. 4 — MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG. 5 — MAXIMUM TOTAL BRIDGE POWER DISSIPATION**



**FIG. 6 — MEAN AVERAGE FORWARD CURRENT CASE TEMPERATURE**

