



Micro Commercial Components

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# RS801 THRU RS807

## Features

- Surge Overload Rating Of 300 Amps
- Low Leakage and Low Forward Voltage
- Any Mounting Position
- Silver Plated Copper Leads
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1
- Lead Free Finish/RoHS Compliant (NOTE 1)("P" Suffix designates RoHS Compliant. See ordering information)

## Maximum Ratings

- Operating Junction Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- UL Recognized File # E165989

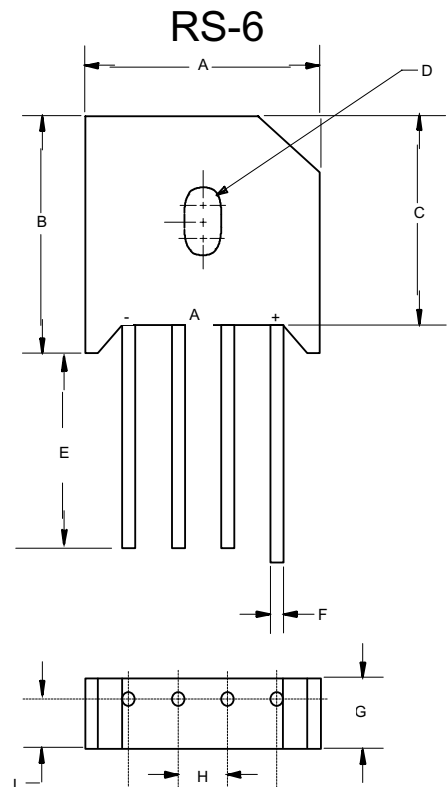
Microsemi Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
RS801	RS801	50V	35V	50V
RS802	RS802	100V	70V	100V
RS803	RS803	200V	140V	200V
RS804	RS804	400V	280V	400V
RS805	RS805	600V	420V	600V
RS806	RS806	800V	560V	800V
RS807	RS807	1000V	700V	1000v

## Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	8.0A 6.0A	$T_C = 90^\circ\text{C}$ $T_A = 45^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	300A	8.3ms, half sine
Maximum Forward Voltage Drop Per Element	$V_F$	1.1V	$I_{FM} = 4.0\text{A};$ $T_J = 25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	10 $\mu\text{A}$ 1mA	$T_J = 25^\circ\text{C}$ $T_J = 100^\circ\text{C}$
Typical Thermal Resistance Per Leg	$T_{thJA}$ $T_{thJC}$	18°C/W 3.0°C/W	(Note 2) (Note 3)

- Notes: 1. High Temperature Solder Exemption Applied, see EU Directive Annex Notes 7.  
2. Units mounted in free air, no heatsink, P.C.B 0.375"(9.5mm) lead length with 0.5x0.5"(12x12mm) copper pads.  
2. Units mounted on a 3.0x3.0x0.11"(7.5x7.5x0.3cm) Al. Plate heatsink.

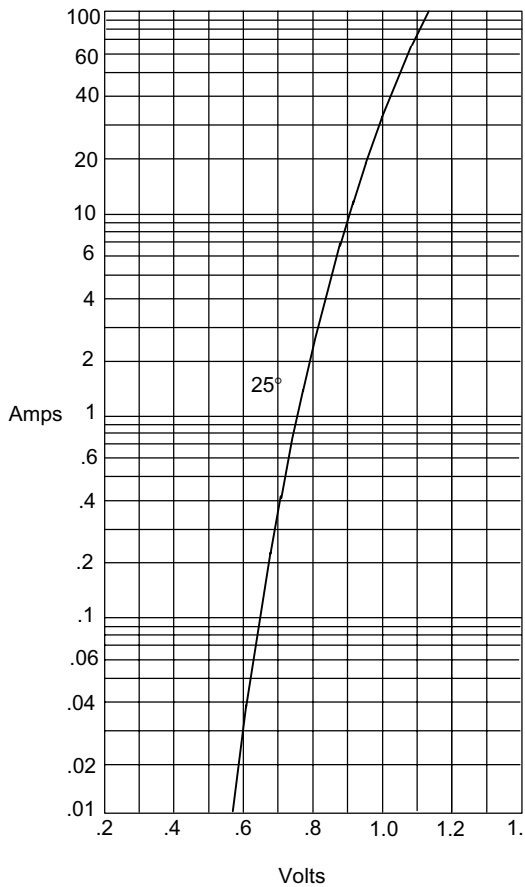
## 8 Amp Single Phase Bridge Rectifier 50 to 1000 Volts



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.895	.935	22.70	23.70	
B	---	.760	---	19.30	
C	.660	.700	16.80	17.80	
D	.150 x	.23L	3.80 x	5.57L	HOLE
E	1.00	---	25.40	---	
F	.048	.052	1.20	1.30	TYP
G	.260	.280	6.60	7.10	
H	.180	.220	4.60	5.60	
I	.185	.205	4.70	5.20	

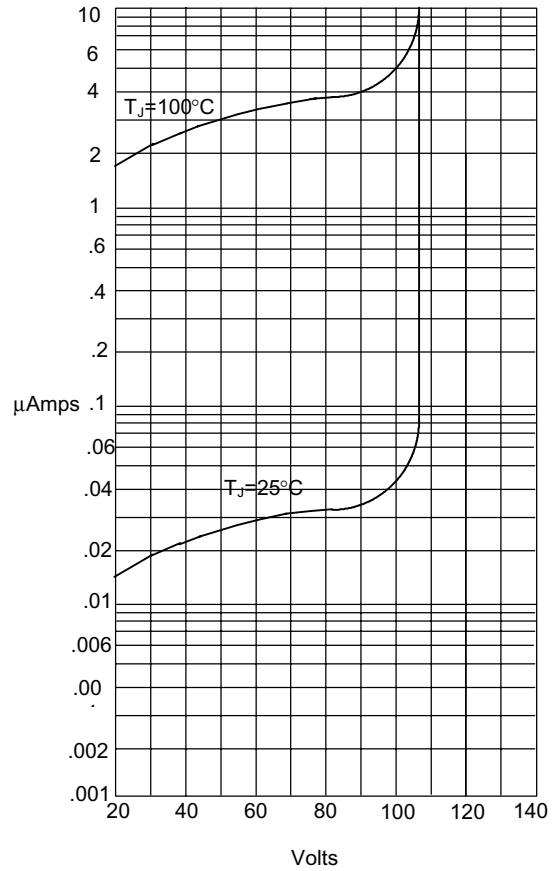
## RS801 thru RS807

Figure 1  
Typical Forward Characteristics



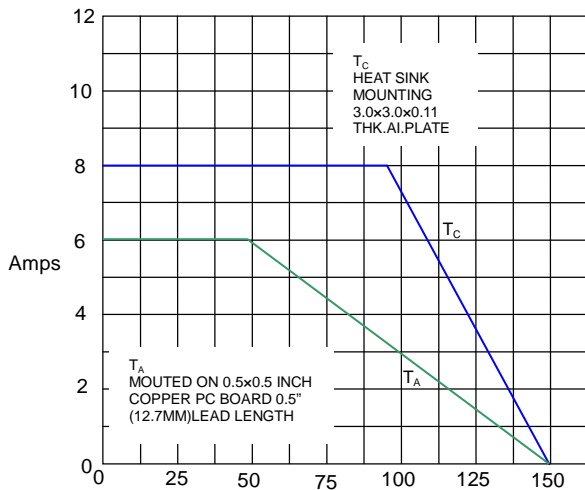
Instantaneous Forward Current - Amperes *versus*  
Instantaneous Forward Voltage - Volts

Figure 2  
Typical Reverse Characteristics



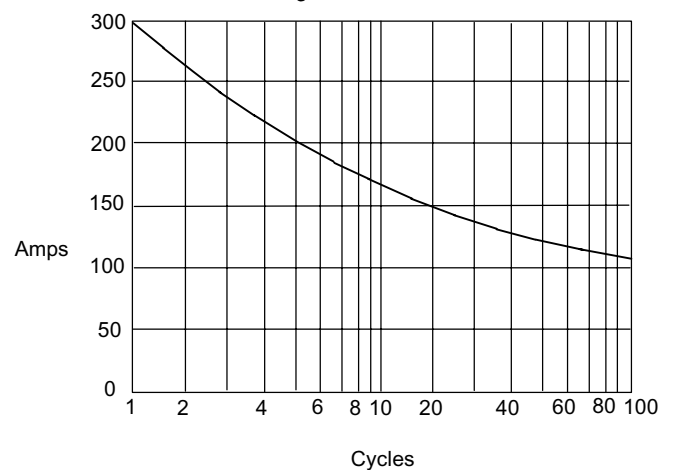
Instantaneous Reverse Leakage Current - MicroAmperes *versus*  
Percent Of Rated Peak Reverse Voltage - Volts

Figure 3  
Typical Forward Output Current Derating Curve



Average Forward Rectified Current - Amperes *versus*

Figure 4  
Peak Forward Surge Current



Peak Forward Surge Current - Amperes *versus*  
Number Of Cycles At 60Hz - Cycles

## Ordering Information

Device	Packing
(Part Number)-BP	Bulk;200pcs/Box

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