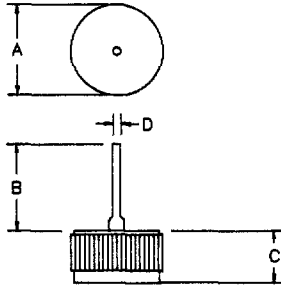


Silicon Power Rectifier S/R50PF Series



Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A	.501	.505	12.70	12.85	Dia.
B	.450	0.50	11.40	12.70	
C	.335	.365	8.50	9.30	
D	0.97	.103	2.45	2.60	Dia.



Microsemi Catalog Number		Repetitive Peak Reverse Voltage	<ul style="list-style-type: none"> • High Voltage, Low Leakage Current • Glass Passivated Die • Economical Design • 700 Amps Surge Rating • VRRM to 800V
Standard	Reverse		
S5020PF	R5020PF	200	
S5040PF	R5040PF	400	
S5060PF	R5060PF	600	
S5080PF	R5080PF	800	

Electrical Characteristics			
Average Forward Current	$I_F(AV)$ 50 Amps	$T_C = 160^\circ C$, half sine wave, $R_{\theta JC} = 0.75^\circ C/W$	
Maximum Surge Current	I_{FSM} 800 Amps	8.3ms, half sine, $T_J = 175^\circ C$	
Maximum I^2t For Fusing	i^2t 2600 $A^2 s$		
Max. Peak Forward Voltage	V_{FM} 1.0 Volts	$I_{FM} = 50A; T_J = 25^\circ C$	
Max. Peak Reverse Current	I_{RM} 40 μA	$V_{RRM, T_J} = 25^\circ C$	
Max. Peak Reverse Current	I_{RM} 2.0 mA	$V_{RRM, T_J} = 150^\circ C$	
Max. Recommended Operating	10kHz		

Thermal and Mechanical Characteristics		
Storage temp range	T_{STG}	$-65^\circ C$ to $200^\circ C$
Operating junction temp range	T_J	$-65^\circ C$ to $200^\circ C$
Max thermal resistance	$R_{\theta JC}$	$0.75^\circ C/W$ Junction to case
Typical thermal resistance	$R_{\theta CS}$	$0.2^\circ C/W$ Case to sink
Typical Weight		.27 ounce (7.2 grams) typical

PH: 303-469-2161
FAX: 303-466-3775

Microsemi Corp.
Colorado

E-41

S/R50PF

Figure 1
Typical Forward Characteristics

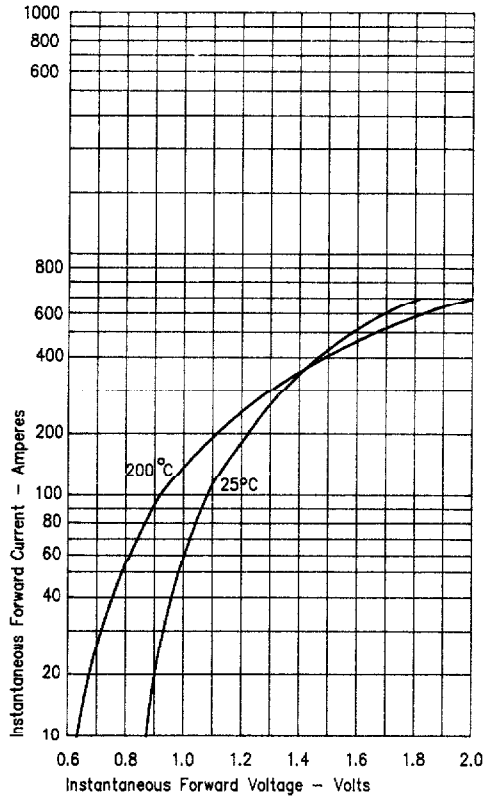


Figure 3
Forward Current Derating

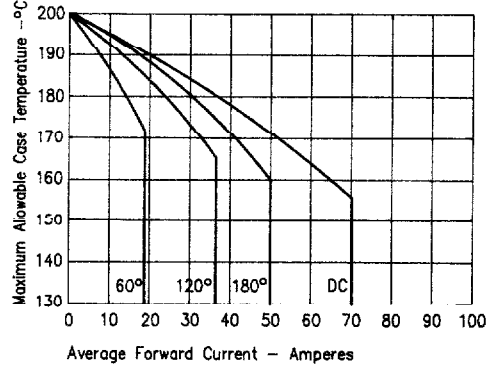


Figure 4
Maximum Forward Power Dissipation

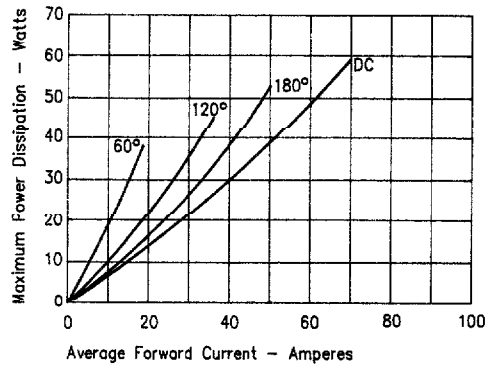


Figure 2
Typical Reverse Characteristics

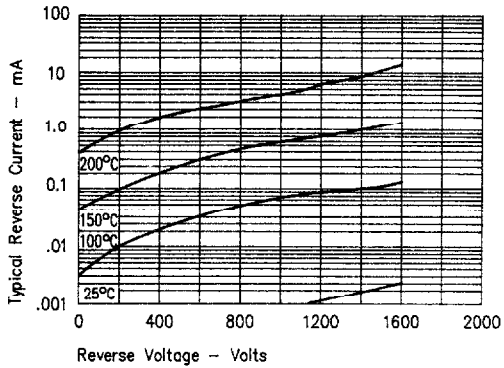
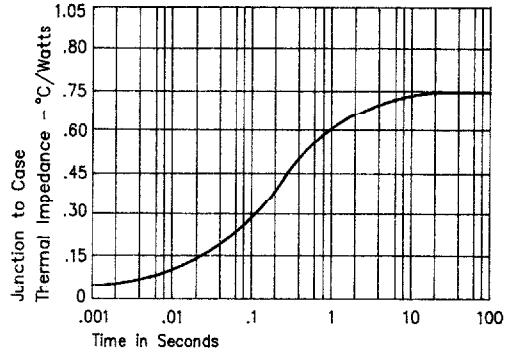


Figure 5
Transient Thermal Impedance



S/R50PF

Figure 6
Maximum Nonrepetitive Surge Current

