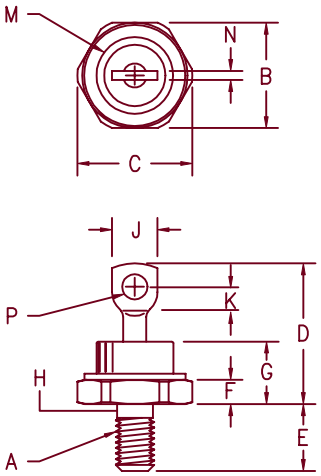
Silicon Power Rectifier
S/R36 Series



Notes:
1. 1/4–28
2. Full threads within 2 1/2 threads
3. Standard polarity: Stud is cathode
   Reverse polarity: Stud is anode

Dim.	Inches		Millimeter		
	Minimum	Maximum	Minimum	Maximum	Notes
A	---	---	---	---	1
B	.667	.687	16.95	17.44	
C	---	.793	---	20.14	
D	---	1.00	---	25.40	
E	.422	.453	10.72	11.50	
F	.115	.200	2.93	5.08	
G	---	.450	---	11.43	
H	.220	.249	5.59	6.32	2
J	.250	.375	6.35	9.52	
K	.156	---	3.97	---	
M	---	.667	---	16.94	Dia
N	---	.080	---	2.03	
P	.140	.175	3.56	4.44	Dia

DO203AB (D05)

Microsemi Catalog Number Standard	Reverse	Peak Reverse Voltage
S3610	R3610	100V
S3620	R3620	200V
S3640	R3640	400V
S3660	R3660	600V
S3680	R3680	800V
S36100	R36100	1000V
S36120	R36120	1200V
S36140	R36140	1400V
S36160	R36160	1600V

- Low thermal resistance
- Glass Passivated Die
- 1200 Amps Surge Rating
- Glass to metal seal construction
- V_{RRM} to 1600V

Electrical Characteristics

Average forward current	$I_{F(AV)}$ 70 Amps	T_C = 151°C, Half Sine Wave, $R_{\theta JC}$ = 0.65°C/W
Maximum surge current	I_{FSM} 1200 Amps	8.3ms, half sine, T_J = 200°C
Max I^2t for fusing	I^2t 6000 A^2s	
Max peak forward voltage	V_{FM} 1.25 Volts	I_{FM} = 200A; T_J = 25°C*
Max peak reverse current	I_{RM} 25 µA	V_{RRM}, T_J = 25°C
Max peak reverse current	I_{RM} 2.0 mA	V_{RRM}, T_J = 150°C*
Max Recommended Operating Frequency	10kHz	

*Pulse test: Pulse width 300 µsec. Duty cycle 2%

Thermal and Mechanical Characteristics

Storage temperature range	T_{STG}	–65°C to 200°C
Operating junction temp range	T_J	–65°C to 200°C
Maximum thermal resistance	$R_{\theta JC}$	0.65°C/W Junction to Case
Mounting torque		25–30 inch pounds
Weight		.6 ounces (17 grams) typical

12–14–00 Rev. 1

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S/R36

Figure 1
Typical Forward Characteristics

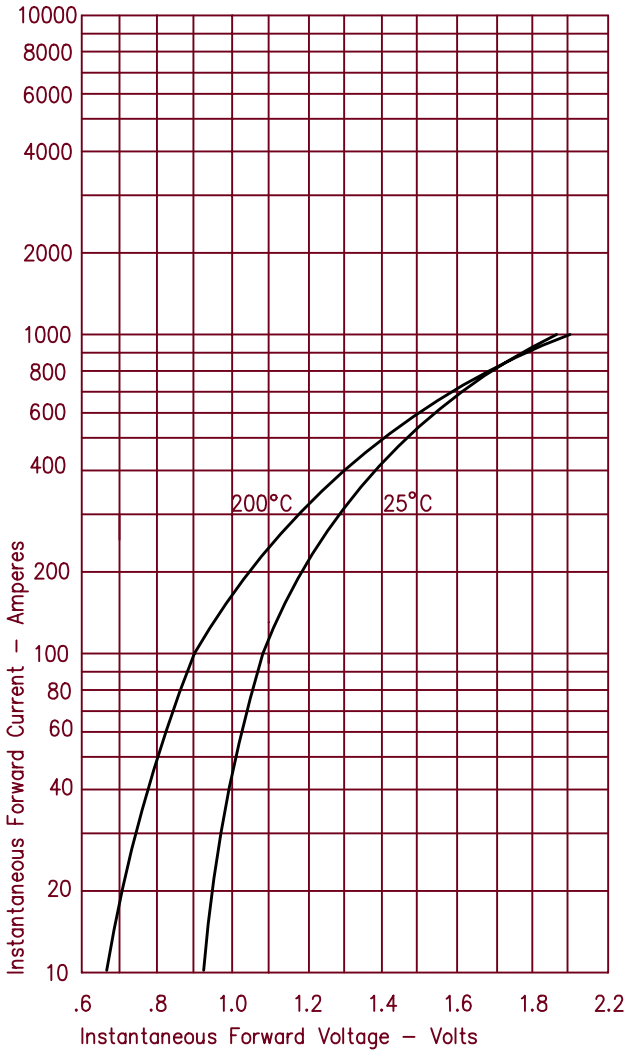


Figure 2
Typical Reverse Characteristics

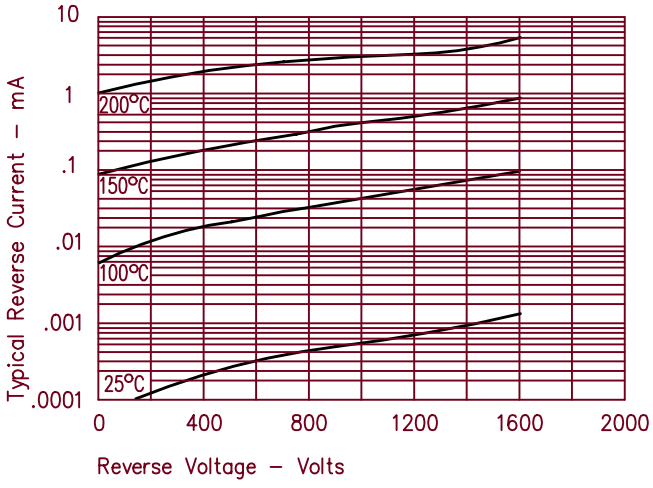


Figure 3
Forward Current Derating

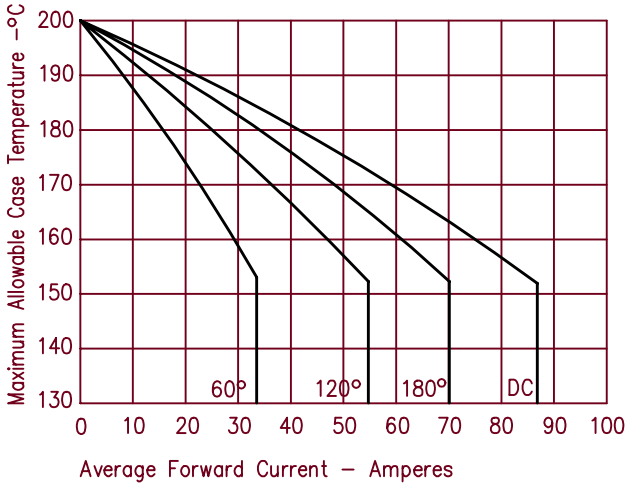


Figure 4
Maximum Forward Power Dissipation

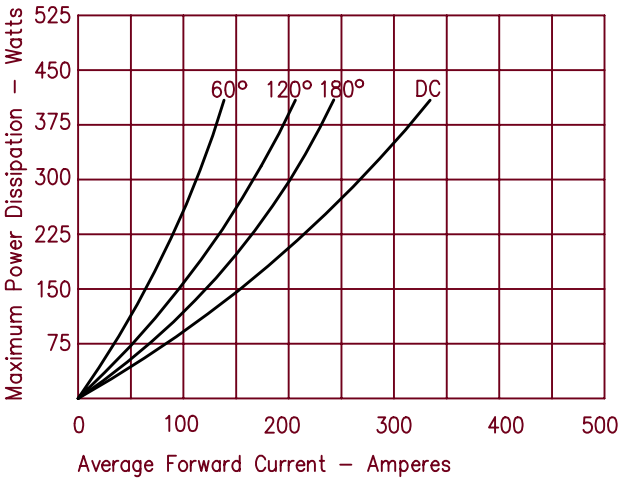
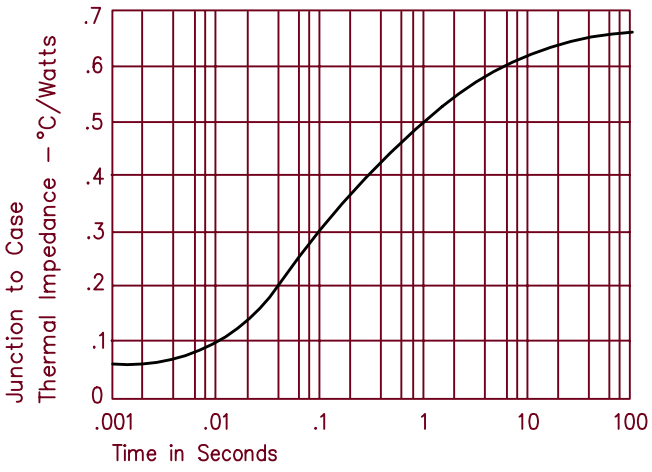


Figure 5
Transient Thermal Impedance



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