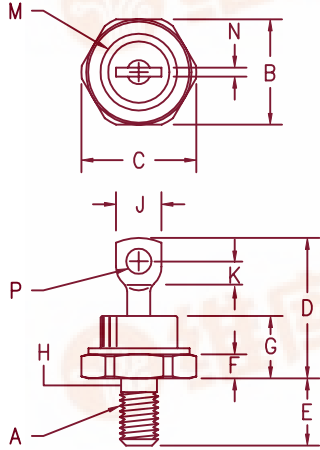


Silicon Power Rectifier S/R307 Series



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

Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
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
S30720	R30720		200V
S30740	R30740		400V
S30760	R30760		600V

- Glass Passivated Die
- 1500 Amps Surge Rating
- Glass to metal seal construction
- VRRM to 600V

Electrical Characteristics

Average forward current	$I_F(AV)$ 85 Amps	$T_C = 136^\circ C$, Half Sine Wave, $R_{\theta JC} = 0.8^\circ C/W$
Maximum surge current	I_{FSM} 1500 Amps	8.3ms, half sine, $T_J = 200^\circ C$
Max $I^2 t$ for fusing	$I^2 t$ 9300 A ² s	
Max peak forward voltage	V_{FM} 1.1 Volts	$I_{FM} = 200A; T_J = 25^\circ C^*$
Max peak reverse current	I_{RM} 25 μA	$V_{RRM}, T_J = 25^\circ C$
Max peak reverse current	I_{RM} 4.0 mA	$V_{RRM}, T_J = 150^\circ C$
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	$R_{\theta JC}$	0.8°C/W Junction to Case
Mounting torque		25-30 inch pounds
Weight		.6 ounces (17 grams) typical

S/R307

Figure 1
Typical Forward Characteristics

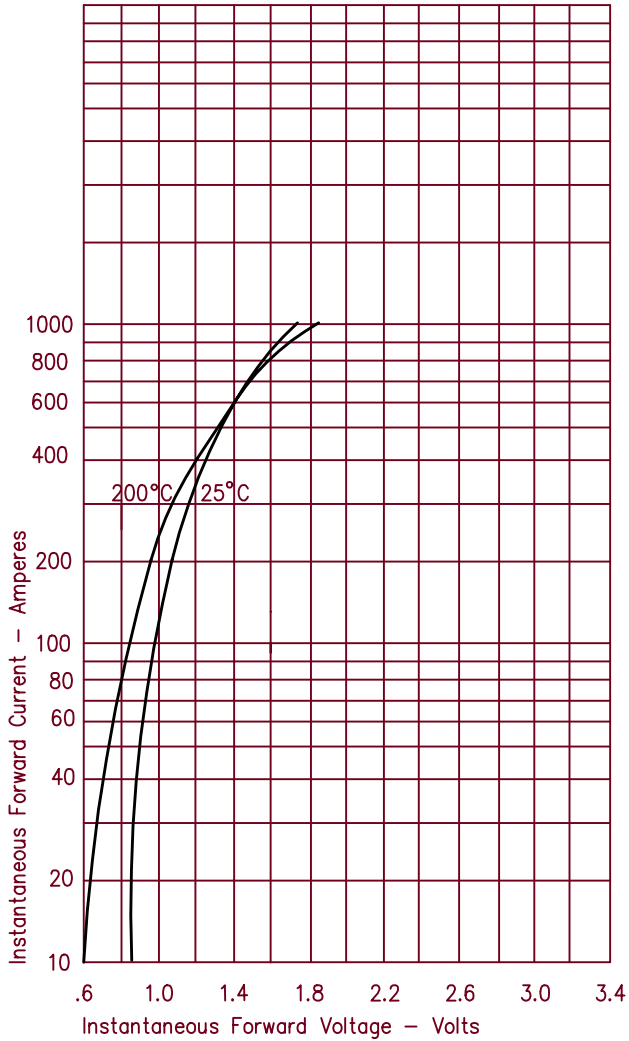


Figure 3
Forward Current Derating

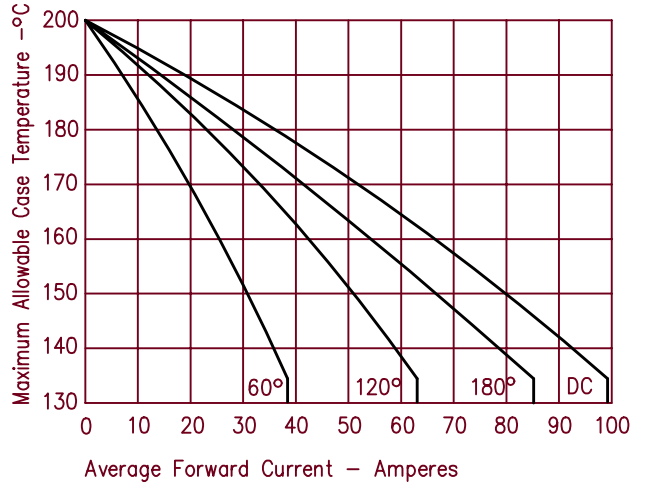


Figure 4
Maximum Forward Power Dissipation

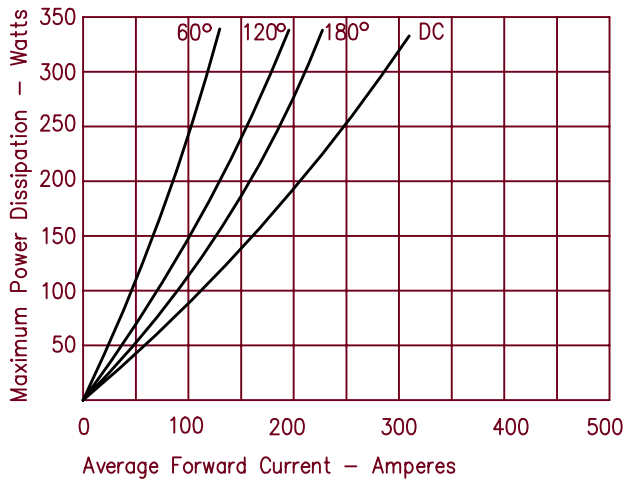


Figure 2
Typical Reverse Characteristics

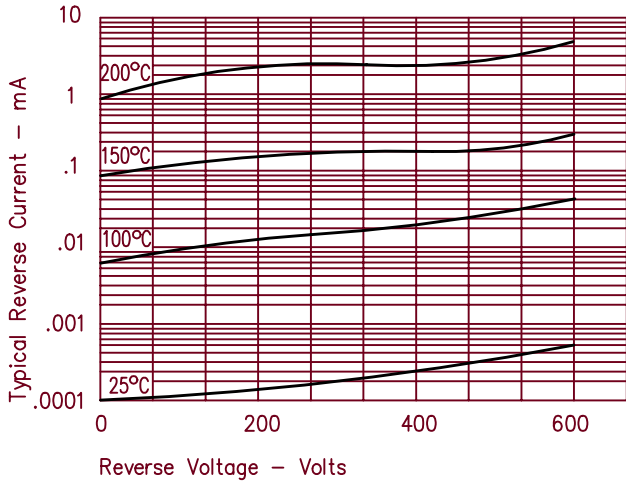


Figure 5
Transient Thermal Impedance

