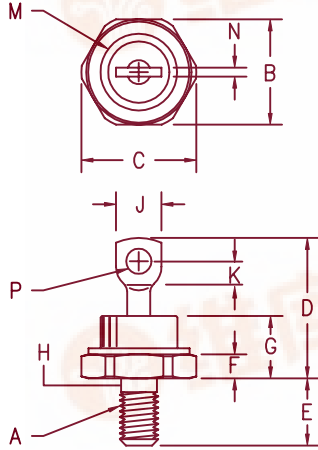


Silicon Power Rectifier S/R306 Series



- 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		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
S30620 R30620	200V
S30640 R30640	400V
S30660 R30660	600V
S30680 R30680	800V
S306100 R306100	1000V
S306120 R306120	1200V

- Glass Passivated Die
- 1200 Amps Surge Rating
- Glass to metal seal construction
- VRRM to 1200V

Electrical Characteristics

Average forward current	$I_F(AV)$ 70 Amps	$T_C = 146^\circ C$, Half Sine Wave, $R_{\theta JC} = 0.8^\circ C/W$
Maximum surge current	I_{FSM} 1200 Amps	8.3ms, half sine, $T_J = 200^\circ C$
Max $I^2 t$ for fusing	$I^2 t$ 5900 A ² s	
Max peak forward voltage	V_{FM} 1.25 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}	$-65^\circ C$ to $200^\circ C$
Operating junction temp range	T_J	$-65^\circ C$ to $200^\circ C$
Maximum thermal resistance	$R_{\theta JC}$	$0.8^\circ C/W$ Junction to Case
Mounting torque		25-30 inch pounds
Weight		.6 ounces (17 grams) typical

S/R306

Figure 1
Typical Forward Characteristics

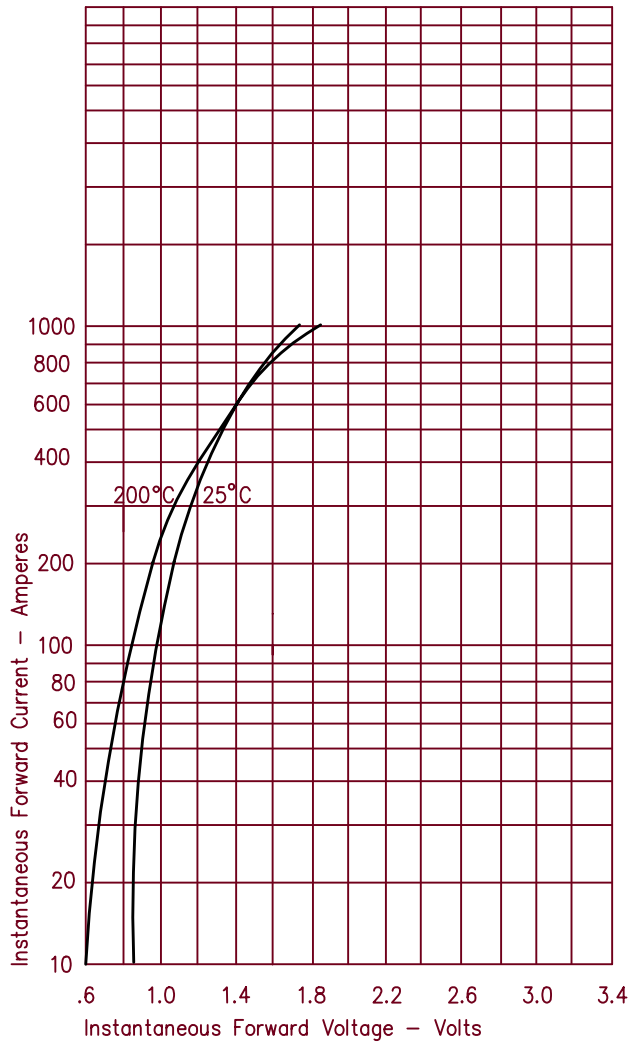


Figure 2
Typical Reverse Characteristics

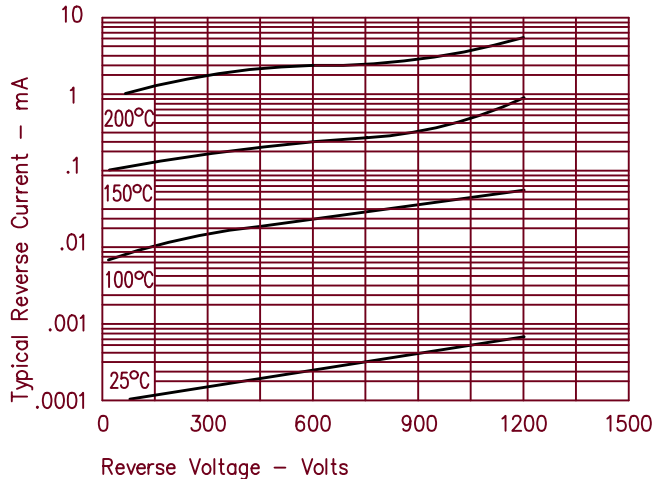


Figure 3
Forward Current Derating

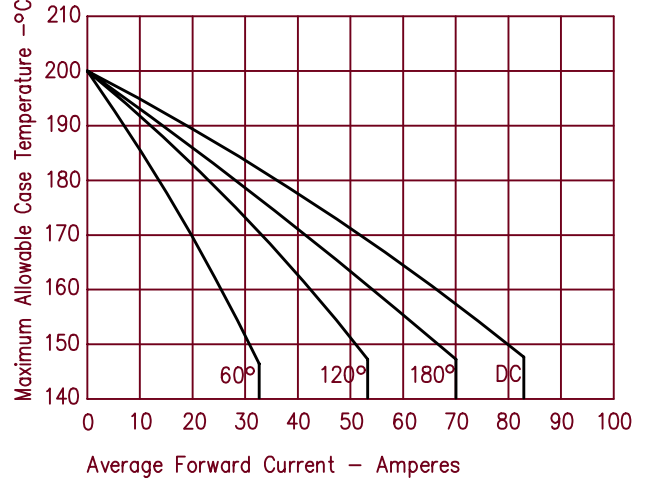


Figure 4
Maximum Forward Power Dissipation

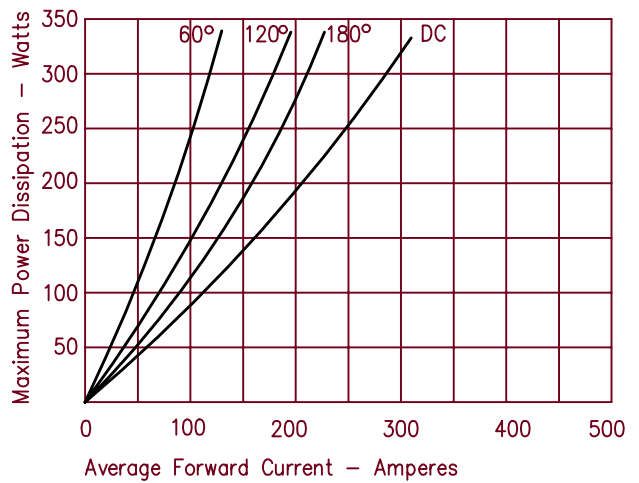


Figure 5
Transient Thermal Impedance

