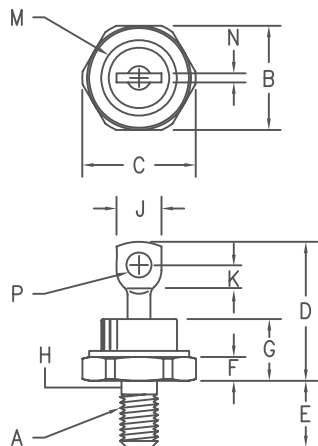


Silicon Power Rectifier S/R306 Series



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	2
G	---	.450	---	11.43	
H	.220	.249	5.59	6.32	
J	.250	.375	6.35	9.52	
K	.156	---	3.97	---	
M	---	.667	---	16.94	Dia
N	---	.080	---	2.03	Dia
P	.140	.175	3.56	4.44	

D0203AB (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
- Low cost Non-RoHS package

Electrical Characteristics

Average forward current	IF(AV) 70 Amps	TC = 146°C, Half Sine Wave, RθJC = 0.8°C/W
Maximum surge current	IFSM 1200 Amps	8.3ms, half sine, TJ = 200°C
Max I² t for fusing	I² t 5900 A²s	
Max peak forward voltage	VFM 1.25 Volts	IFM = 200A: TJ = 25°C*
Max peak reverse current	IRM 25 µA	VRRM, TJ = 25°C
Max peak reverse current	IRM 4.0 mA	VRRM, TJ = 150°C
Max Recommended Operating Frequency	10kHz	

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

Thermal and Mechanical Characteristics

Storage temperature range	TSTG	-65°C to 200°C
Operating junction temp range	TJ	-65°C to 200°C
Maximum thermal resistance	RθJC	0.8°C/W Junction to Case
Mounting torque		25-30 inch pounds
Weight		.6 ounces (17 grams) typical

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05-02-07 Rev. 3

S/R306

Figure 1
Typical Forward Characteristics

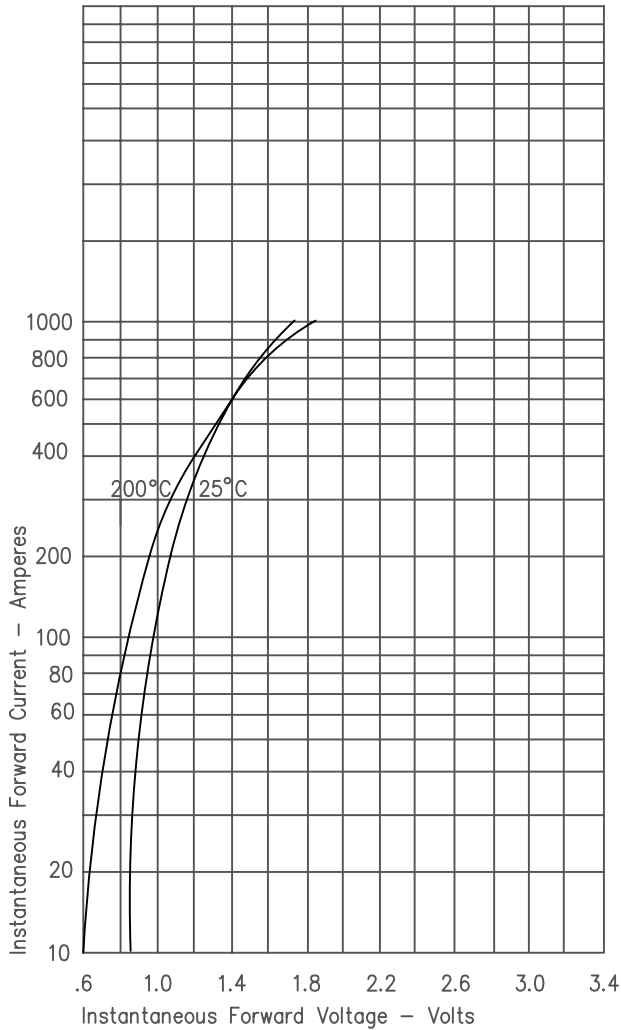


Figure 2
Typical Reverse Characteristics

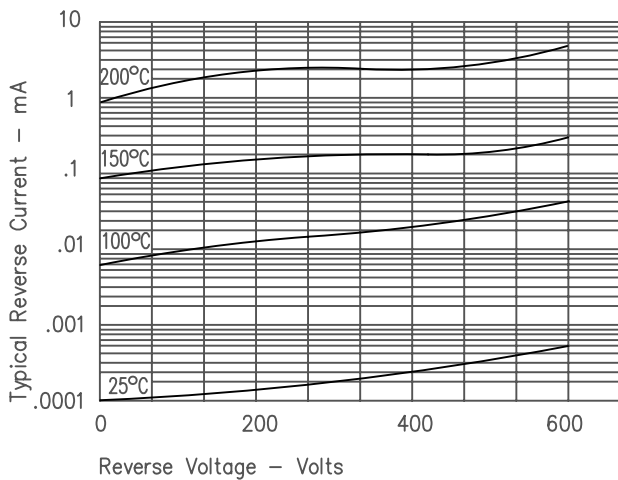


Figure 3
Forward Current Derating

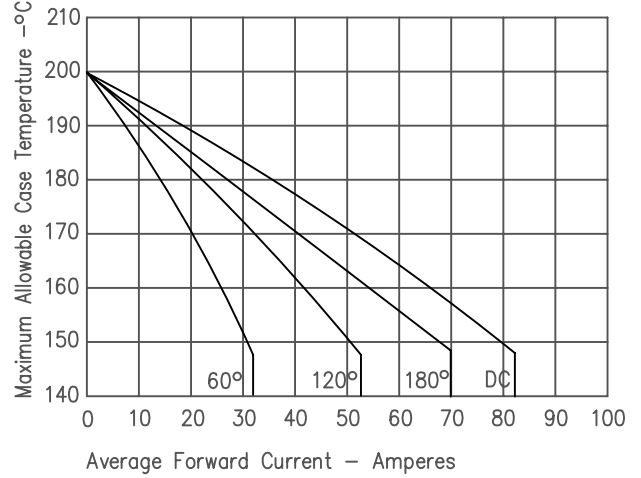


Figure 4
Maximum Forward Power Dissipation

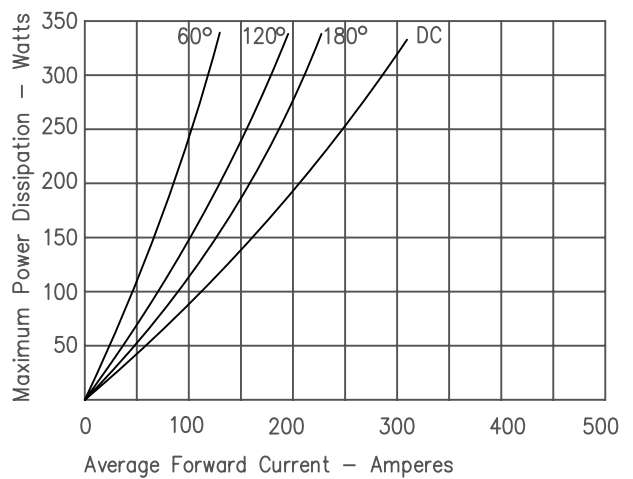


Figure 5
Transient Thermal Impedance

