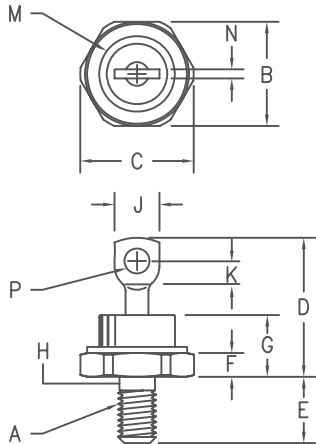




**THE DATASHEET OF**  
**S30620**



# 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

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 I <sup>2</sup> t for fusing	I <sup>2</sup> t 5900 A <sup>2</sup> s	
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

# S/R306

Figure 1  
Typical Forward Characteristics

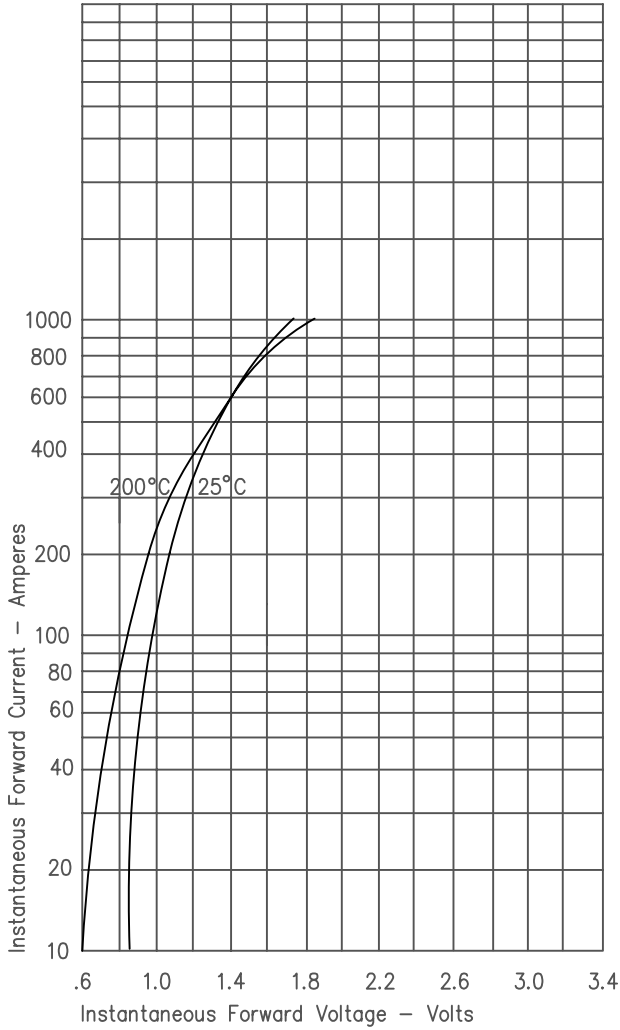


Figure 3  
Forward Current Derating

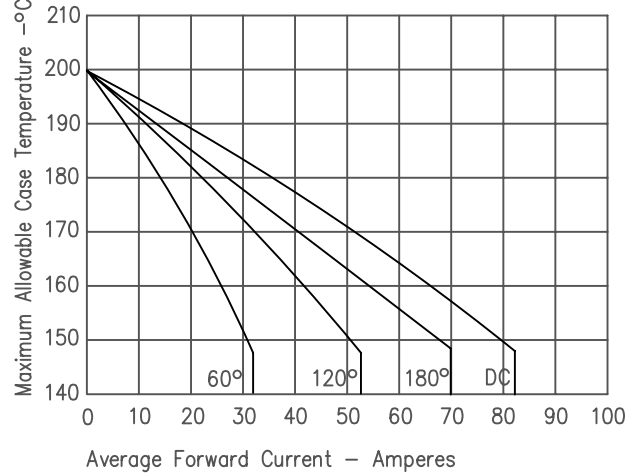


Figure 4  
Maximum Forward Power Dissipation

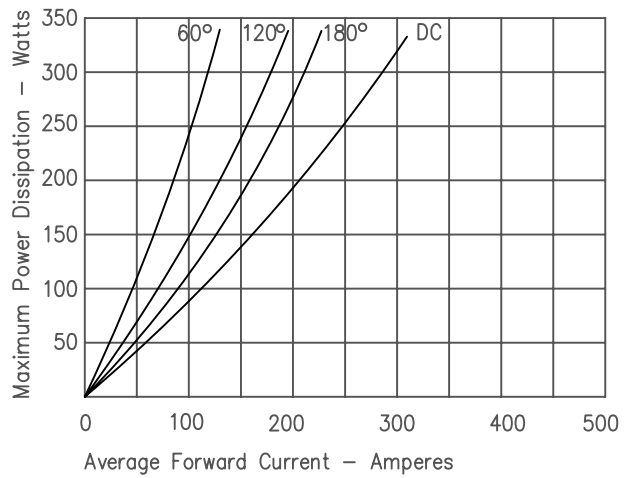


Figure 2  
Typical Reverse Characteristics

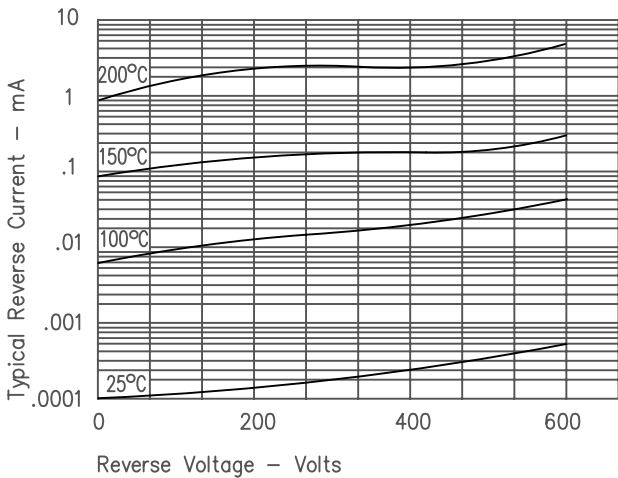
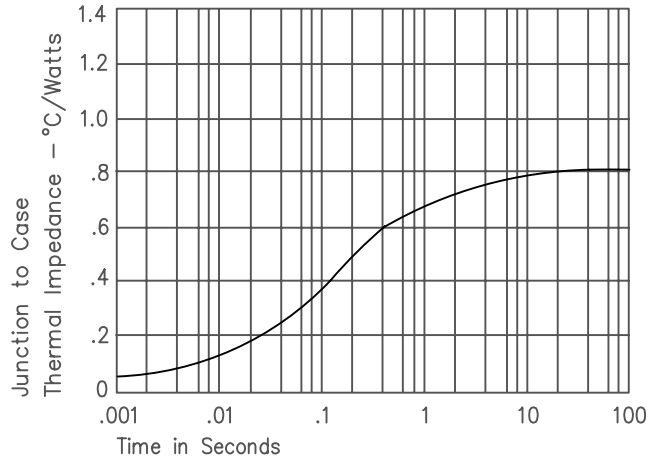


Figure 5  
Transient Thermal Impedance



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