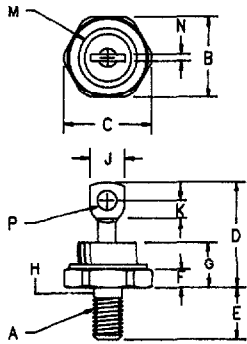


# Silicon Power Rectifier S/R307 Series



- 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		Peak Reverse Voltage
Standard	Reverse	
S30720	R30720	200V
S30740	R30740	400V
S30760	R30760	600V

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

### Electrical Characteristics

Average forward current	IF(AV) 85 Amps	TC = 136°C, Half Sine Wave, RθJC = 0.8°C/W
Maximum surge current	IFSM 1500 Amps	8.3ms, half sine, TJ = 200°C
Max I <sup>2</sup> t for fusing	I <sup>2</sup> t 9300 A <sup>2</sup> s	
Max peak forward voltage	VFM 1.1 Volts	IFM = 200A; TJ = 25°C*
Max peak reverse current	IRM 50 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	TSTC	-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
Typical thermal resistance	RθJC	0.72°C/W Junction to Case
Mounting torque		30 inch pounds maximum
Weight		.6 ounces (17 grams) typical

**Microsemi Corp.**  
**Colorado**

# S/R307

Figure 1  
Typical Forward Characteristics

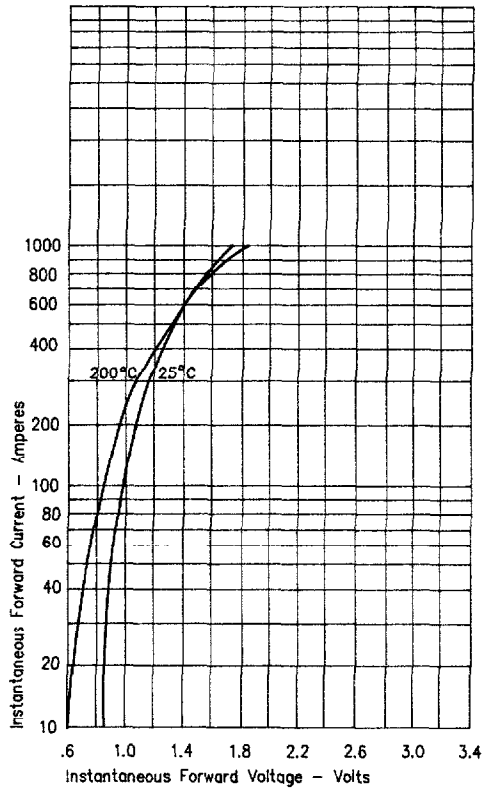


Figure 3  
Forward Current Derating

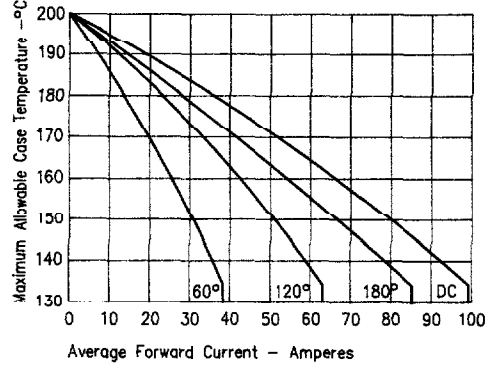


Figure 4  
Maximum Forward Power Dissipation

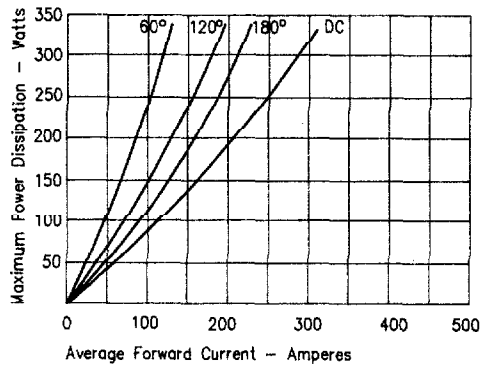


Figure 2  
Typical Reverse Characteristics

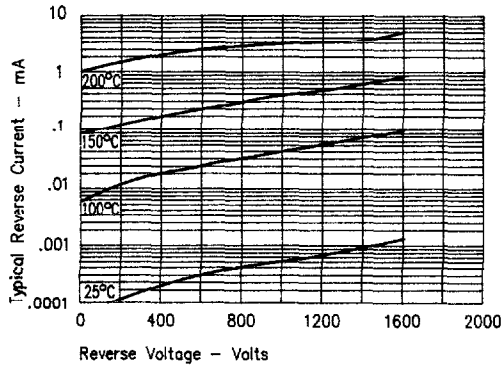
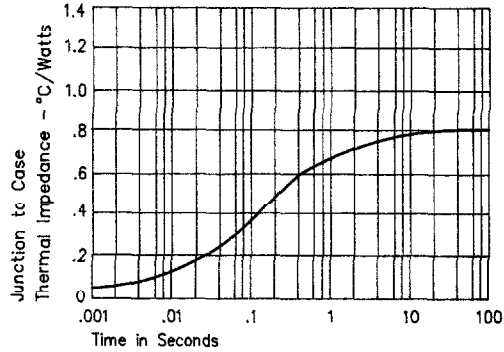


Figure 5  
Transient Thermal Impedance



# S/R307

