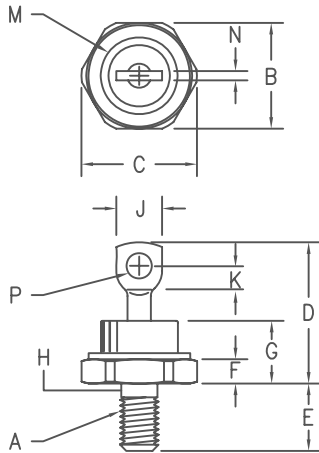


Silicon Power Rectifier S/R38 Series



- Notes:
- 1/4-28 UNF-3A
 - Full threads within 2 1/2 threads
 - For Reverse Polarity add R to Part Number
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
S3820	R3820
S3840	R3840
S3860	R3860
S3880	R3880
S38100	R38100
S38120	R38120

Peak Reverse Voltage
200V
400V
600V
800V
1000V
1200V

- Glass to metal construction
- Highest current D0-5 available
- Glass passivated die
- 1800 amps surge rating
- VRRM to 1200V

Electrical Characteristics

Average forward current	IF(AV) 100 Amps	TC = 144°C, half sine wave, RθJC = 0.5°C/W
Maximum surge current	IFSM 1800 Amps	8.3ms, half sine, TJ = 200°C
Max I² t for fusing	I² t 13440 A²s	
Max peak forward voltage	VFM 1.15 Volts	IFM = 200A: TJ = 25°C*
Max peak reverse current	IRM 25 µA	VRRM, TJ = 25°C
Max peak reverse current	IRM 3.0 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	0.5°C/W Junction to Case
Mounting torque		25-30 inch pounds
Weight		.6 ounces (17 grams) typical

S/R38

Figure 1
Typical Forward Characteristics

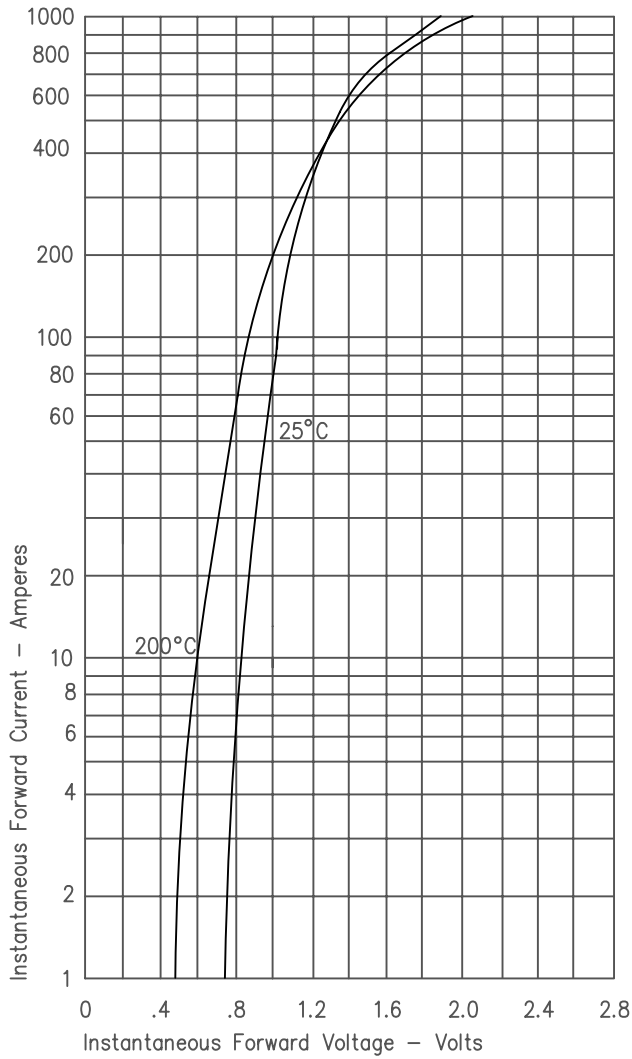


Figure 2
Typical Reverse Characteristics

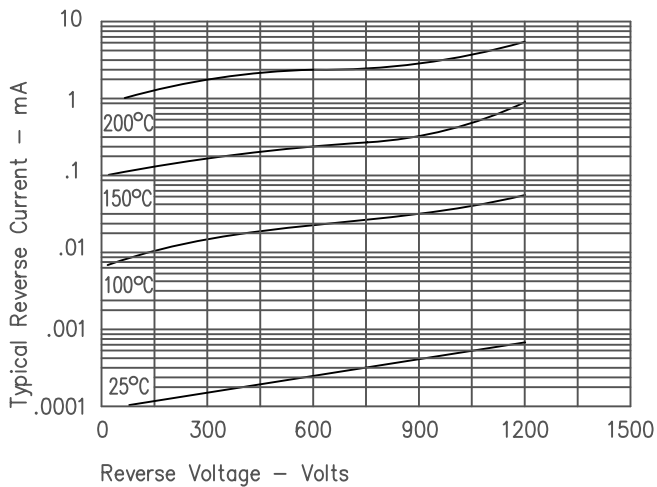


Figure 3
Forward Current Derating

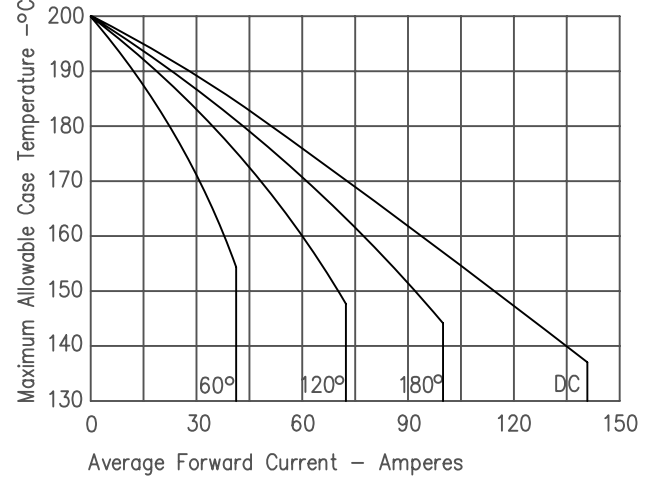


Figure 4
Maximum Forward Power Dissipation

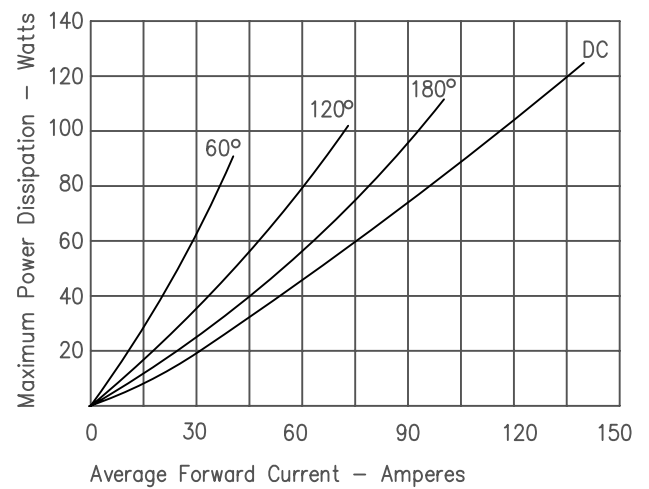


Figure 5
Transient Thermal Impedance

