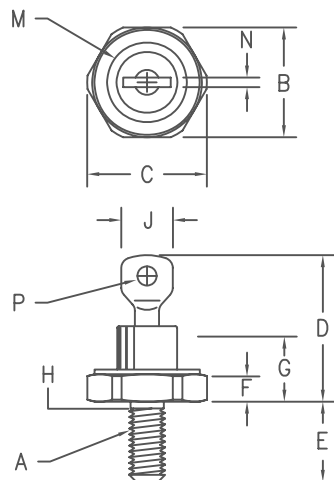


Silicon Power Rectifier S/R20 Series



Notes:

- 10-32 UNF3A
- Full threads within 2 1/2 threads
- Standard Polarity: Stud is Cathode
Reverse Polarity: Stud is Anode

Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A	---	---	---	---	1
B	.424	.437	10.77	11.10	
C	---	.505	---	12.82	
D	.600	.800	15.24	20.32	
E	.422	.453	10.72	11.50	
F	.075	.175	1.91	4.44	
G	---	.405	---	10.29	
H	.163	.189	4.15	4.80	2
J	---	.310	---	7.87	
M	---	.350	---	8.89	Dia
N	.020	.065	.510	1.65	
P	.070	.100	1.78	2.54	Dia

DO203AA (D04)

Microsemi Catalog Number	JEDEC Numbers		Peak Reverse Voltage	
1N1064	1N1341, A,B,C	1N1581	1N1612,A	1N2228,A
1N1065	1N1342, A,B,C	1N1582	1N1613,A	
1N1066	1N1343, A,B,C			
*S2020	1N1067	1N1344, A,B,C	1N1583	1N1614,A
	1N1068	1N1345, A,B,C	1N1584	1N2230,A
*S2040	1N1069	1N1346, A,B,C	1N1585	1N1615,A
		1N1347, A,B,C	1N1586	1N2234,A
*S2060		1N1348, A,B,C	1N1587	1N2236,A
*S2080				1N2238,A
*S20100				1N2491 50V
*S20120				1N2492 100V
				1N2493 150V
				1N2494 200V
				1N2495 300V
				1N2496 400V
				1N2497 500V
				1N2498 600V
				1N2499 800V
				1N2500 1000V
				1N2501 1200V

*Change S to R in part number for Reverse Polarity
For 1N types add an R suffix for Reverse Polarity

- Glass Passivated Die
- Low Forward Voltage
- 200A Surge Rating
- Glass to metal seal construction
- V_{RRM} to 1200V
- Low cost Non-RoHS package

Electrical Characteristics

Average forward current	IF(AV) 16 Amps	$T_C = 153^\circ\text{C}$, half sine wave, $R_{\theta JC} = 2.5^\circ\text{C/W}$
Maximum surge current	IFSM 200 Amps	8.3ms, half sine, $T_J = 200^\circ\text{C}$
Max $I^2 t$ for fusing	$I^2 t$ 165 A ² s	
Max peak forward voltage	V _{FM} 1.3 Volts	IFM = 30A: $T_J = 25^\circ\text{C}$ *
Max peak reverse current	I _{RM} 10 μA	V_{RRM} , $T_J = 25^\circ\text{C}$
Max peak reverse current	I _{RM} 1.0 mA	V_{RRM} , $T_J = 150^\circ\text{C}$
Max Recommended Operating Frequency	10kHz	

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

Thermal and Mechanical Characteristics

Storage temperature range	T_{STG}	-65°C to 200°C
Operating junction temp range	T_J	-65°C to 200°C
Maximum thermal resistance	$R_{\theta JC}$	2.5°C/W Junction to Case
Mounting torque		25-30 inch pounds
Weight		.16 ounces (5.0 grams) typical

S/R20

Figure 1
Typical Forward Characteristics

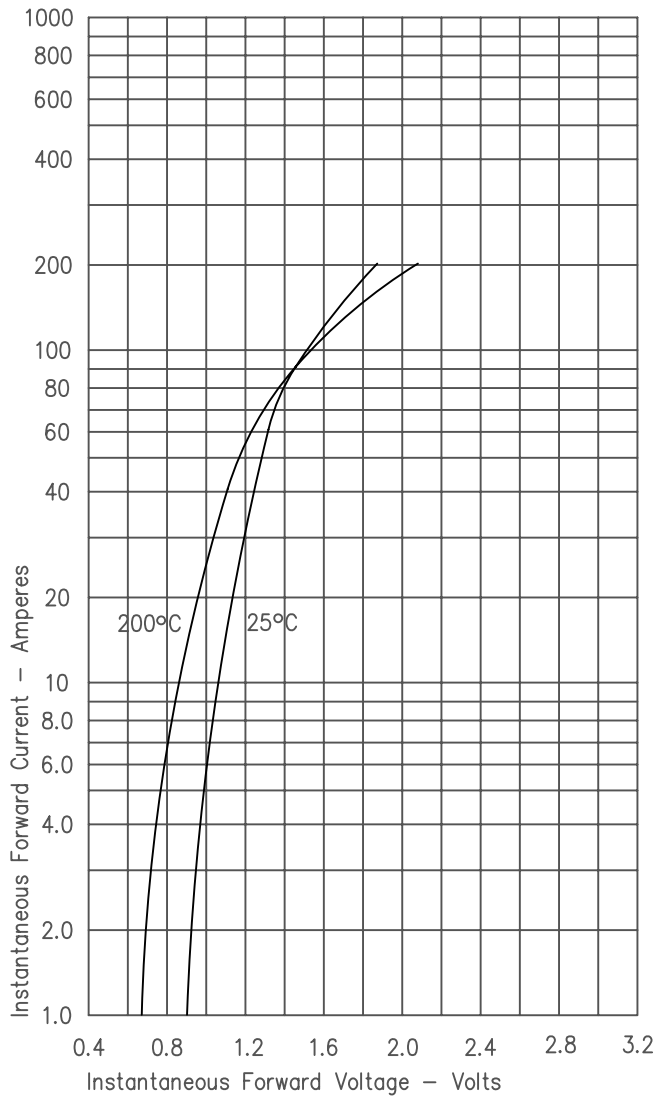


Figure 2
Typical Reverse Characteristics

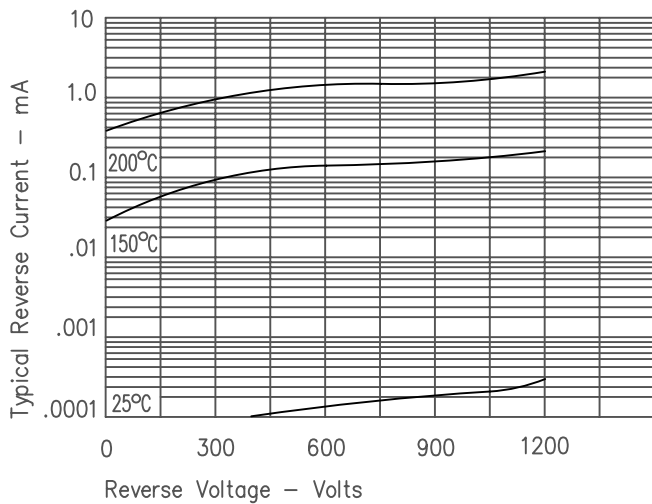


Figure 3
Forward Current Derating

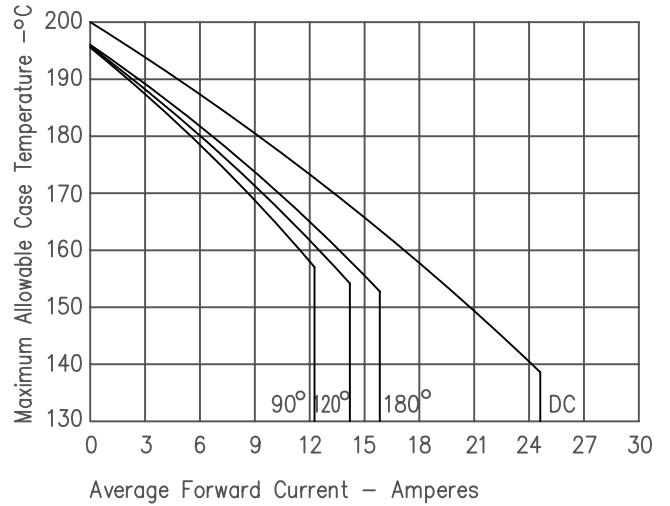


Figure 4
Maximum Forward Power Dissipation

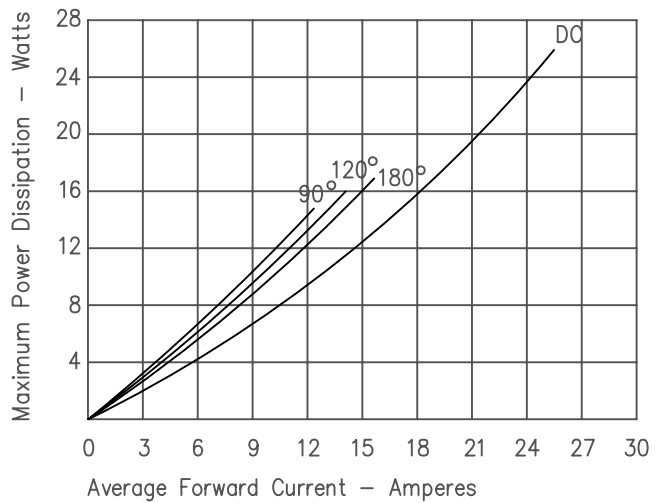
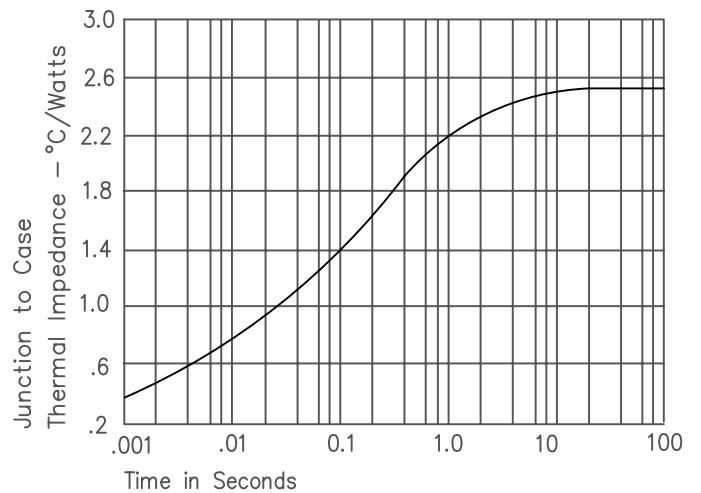


Figure 5
Transient Thermal Impedance



Mouser Electronics

Authorized Distributor

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Microsemi:

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[1N1347B](#) [1N1346B](#) [S2060](#) [1N1345](#) [1N1615A](#) [1N1124](#) [1N1345B](#) [1N1343B](#) [1N1347A](#) [1N1344A](#) [S20100](#) [1N1343](#)
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