



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

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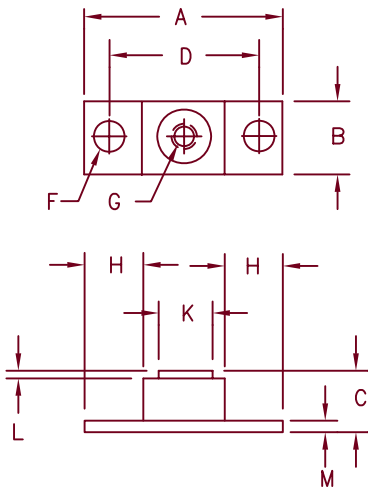
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Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



Silicon Power Rectifier

SDM300



Standard Polarity:
Base plate is cathode
Reverse Polarity:
Base plate is anode

Dim.	Inches		Millimeters		Notes
	Min.	Max.	Min.	Max.	
A	---	2.650	---	67.31	
B	1.240	1.260	31.49	32.00	
C	---	.925	---	23.49	
D	---	2.00 BSC	---	50.80 BSC	
F	0.320	0.340	8.13	8.64	Dia.
G	---	---	5/16-18 UNC		
H	0.630	---	16.00	---	
K	0.610	0.640	15.49	16.26	
L	---	.100	---	2.54	
M	0.182	0.192	4.62	4.88	

Microsemi Catalog Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
SDM30002*	200V	200V
SDM30004*	400V	400V
SDM30006*	600V	600V
SDM30008*	800V	800V
SDM30010*	1000V	1000V
SDM30012*	1200V	1200V
SDM30014*	1400V	1400V
SDM30016*	1600V	1600V

*Change S to R for Reverse Polarity

- Compact Package
- Glass Passivated Die
- 300 Amp Current Rating
- Non-Isolated Baseplate
- Low Profile
- VRRM 200-1600 Volts

Electrical Characteristics

Average forward current	$I_{F(AV)}$ 300 Amps	$T_C = 130^\circ\text{C}$, half sine, $R_{\theta JC} = 0.15^\circ\text{C/W}$
Maximum surge current	I_{FSM} 5500 Amps	8.3 ms, half sine, $T_J = 175^\circ\text{C}$
Max I^2t for fusing	I^2t 125990 A ² s	
Max peak forward voltage	V_{FM} 1.1 Volts	$I_{FM} = 300\text{A}; T_J = 25^\circ\text{C}^*$
Max peak reverse current	I_{RM} 10 mA	$V_{RRM}, T_J = 150^\circ\text{C}^*$
Max peak reverse current	I_{RM} 75 μA	$V_{RRM}, T_J = 25^\circ\text{C}$

*Pulse test: Pulse width 8.33 μsec , Duty cycle <1%

Thermal and Mechanical Characteristics

Storage temp range	T_{STG}	-55°C to 175°C
Operating junction temp range	T_J	-55°C to 175°C
Max thermal resistance	$R_{\theta JC}$	0.15°C/W Junction to case
Typical thermal resistance (greased)	$R_{\theta CS}$	0.04°C/W Case to sink
Terminal Torque		60-75 inch pounds
Mounting Base Torque		30-40 inch pounds
Typical Weight		4.93 ounces (140 grams) typical



SCOTTSDALE

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05-02-07 Rev. 2

SDM300

Figure 1
Typical Forward Characteristics

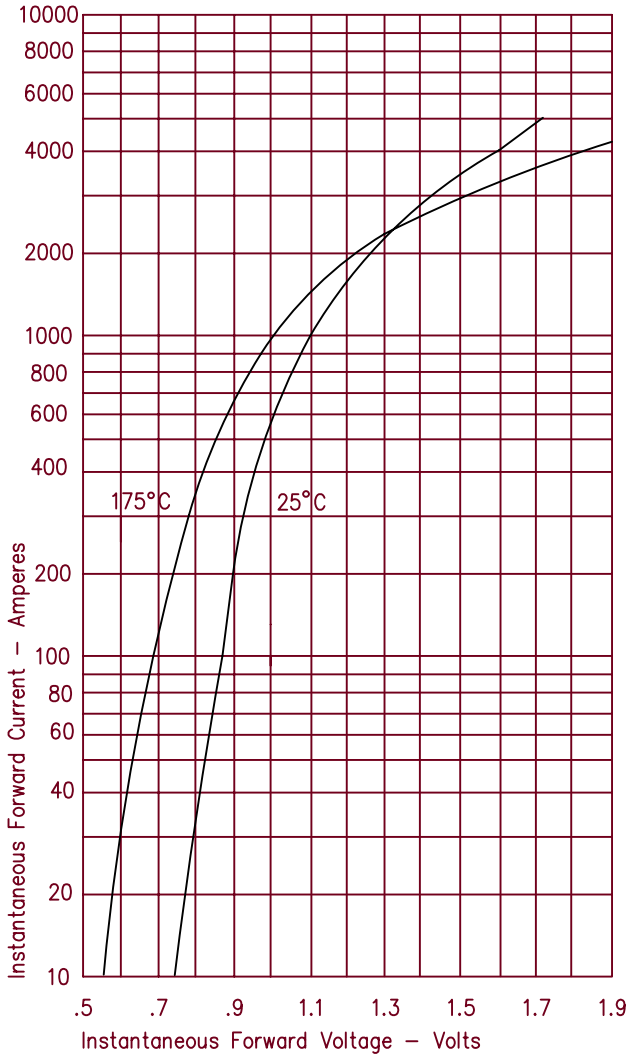


Figure 3
Forward Current Derating

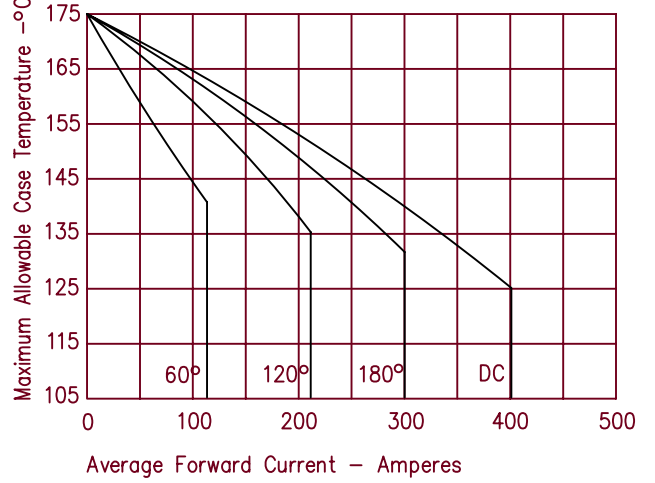


Figure 4
Maximum Forward Power Dissipation

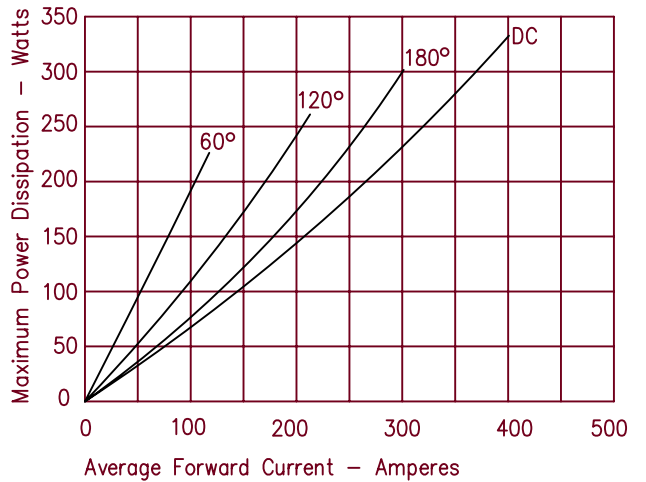


Figure 2
Typical Reverse Characteristics

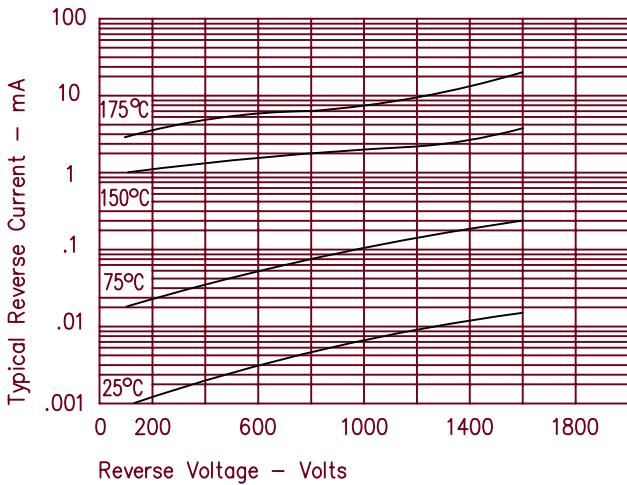


Figure 5
Transient Thermal Impedance

