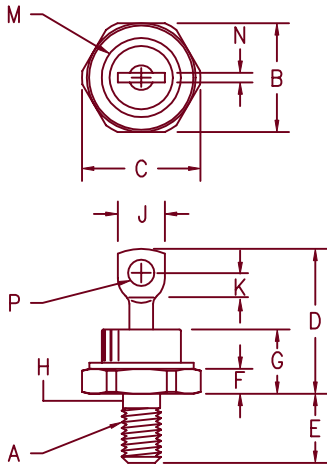


# 60 Amp Schottky Rectifier SD51, SD5145



- Notes:
1. Full threads within 2 1/2 threads
  2. Standard Polarity: Stud is Cathode  
Reverse Polarity: Stud is Anode

Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A	---	---	---	---	1/4-28
B	.669	.688	17.00	17.47	
C	---	.794	---	20.16	
D	.750	1.00	19.05	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	1
J	---	.375	---	9.52	
K	.156	---	3.97	---	
M	---	.510	---	12.95	Dia
N	---	.080	---	2.03	
P	.140	.175	3.56	4.44	Dia

## DO-203AB (DO-5)

Microsemi Catalog Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
SD51*	35V	35V
SD5145*	45V	45V

\*Add the Suffix R for Reverse Polarity

- Schottky Barrier Rectifier
- 150°C Junction Temperature
- Guard Ring Protection
- VRRM - 35 to 45 Volts
- Reverse Energy Tested

Electrical Characteristics			
Average forward current	I <sub>F(AV)</sub> 60 Amps	T <sub>C</sub> = 135°C, Square wave, R <sub>θJC</sub> = 1.0°C/W 8.3 ms, half sine T <sub>J</sub> = 175°C f = 1 KHz, 25°C, 1 μsec Square wave I <sub>FM</sub> = 60A: T <sub>J</sub> = 125°C* I <sub>FM</sub> = 60A: T <sub>J</sub> = 25°C* V <sub>RRM</sub> , T <sub>J</sub> = 125°C* V <sub>RRM</sub> , T <sub>J</sub> = 25°C V <sub>R</sub> = 5.0V, T <sub>J</sub> = 25°C	
Maximum surge current	I <sub>FSM</sub> 800 Amps		
Max repetitive peak reverse current	I <sub>R(OV)</sub> 2 Amps		
Max peak forward voltage	V <sub>FM</sub> .60 Volts		
Max peak forward voltage	V <sub>FM</sub> .70 Volts		
Max peak reverse current	I <sub>RM</sub> 30 mA		
Max peak reverse current	I <sub>RM</sub> 2 mA		
Typical junction capacitance	C <sub>J</sub> 2300 pF		
*Pulse test: Pulse width 300 μsec, Duty cycle 2%			

Thermal and Mechanical Characteristics		
Storage temp range	T <sub>STG</sub>	-65°C to 175°C
Operating junction temp range	T <sub>J</sub>	-65°C to 175°C
Max thermal resistance	R <sub>θJC</sub>	1.0°C/W Junction to case
Typical thermal resistance (greased)	R <sub>θCS</sub>	0.5°C/W Case to sink
Mounting torque		25-30 inch pounds
Weight		0.54 ounce (15.3 grams) typical

# SD51, SD5145

Figure 1  
Typical Forward Characteristics

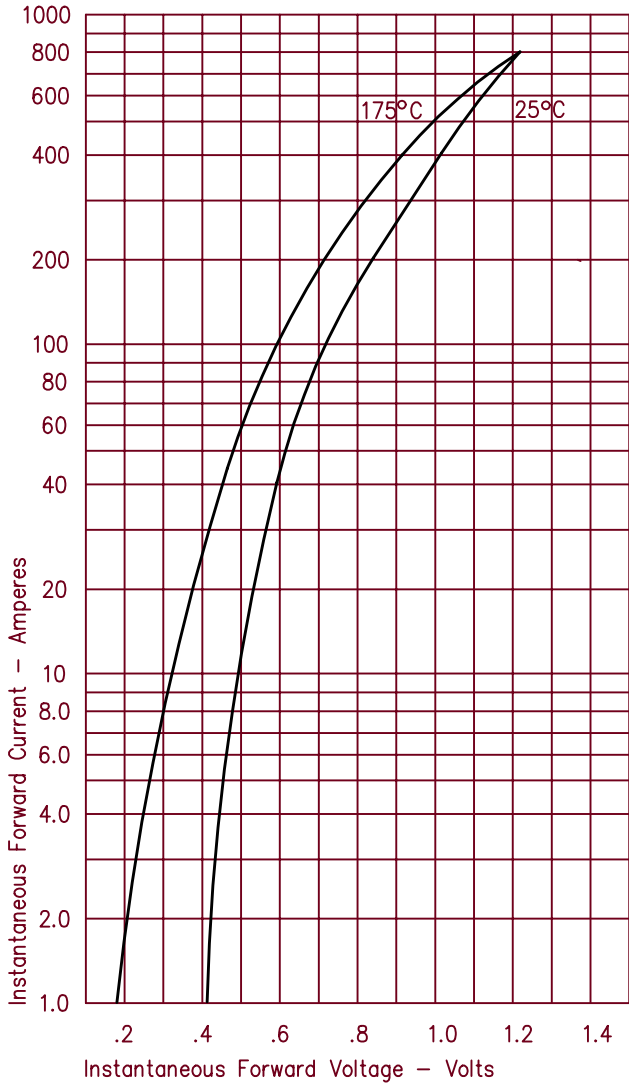


Figure 3  
Typical Junction Capacitance

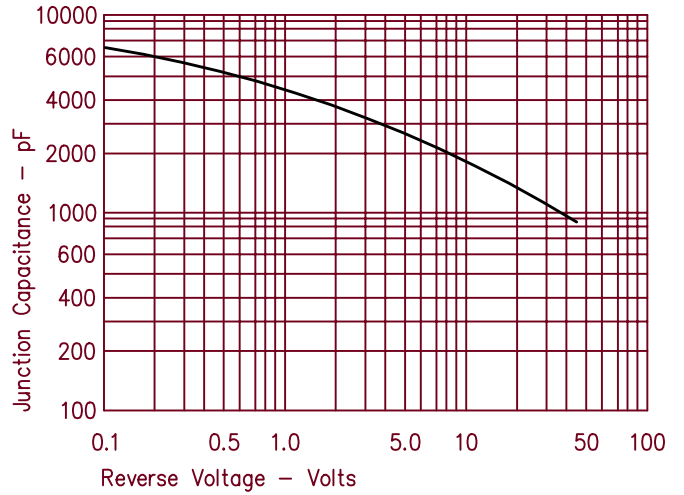


Figure 4  
Forward Current Derating

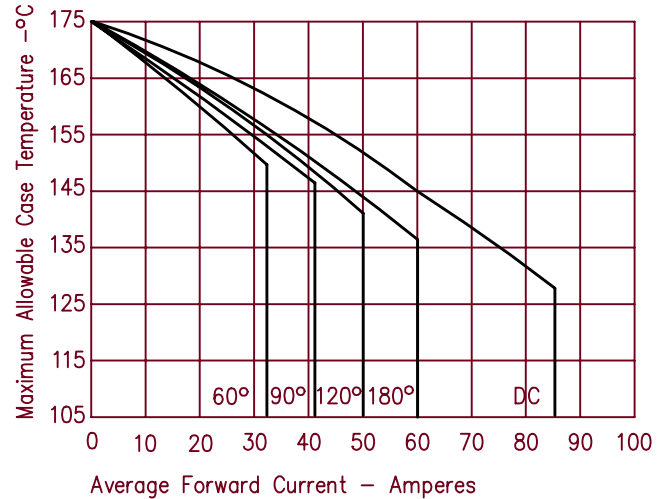


Figure 2  
Typical Reverse Characteristics

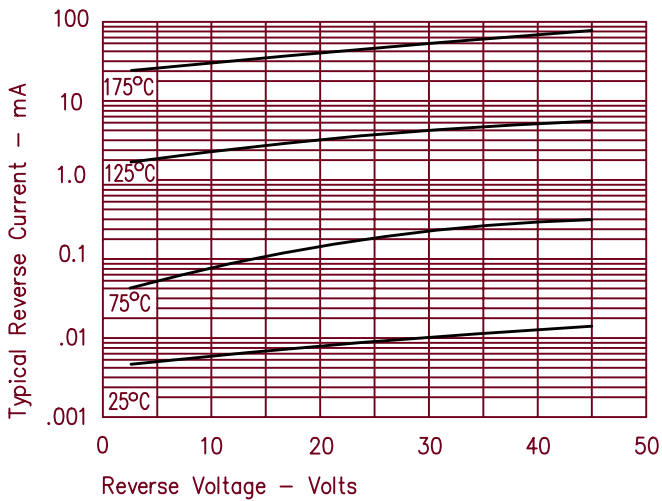


Figure 5  
Maximum Forward Power Dissipation

