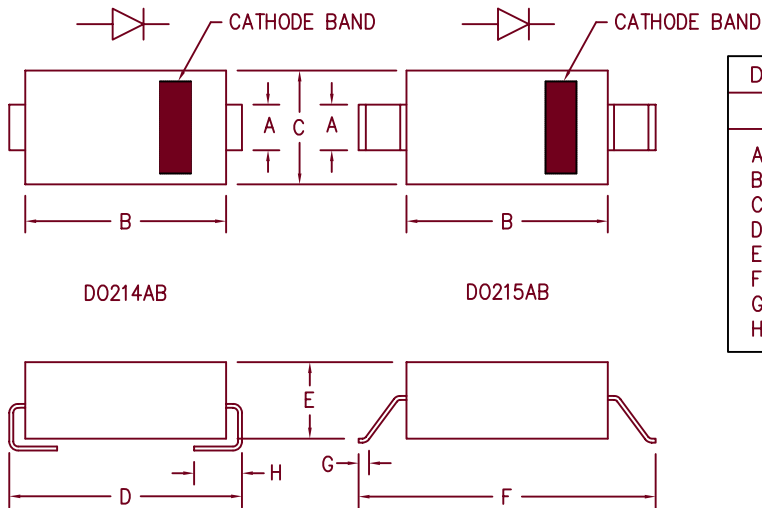


# 5 Amp Schottky Rectifier HSM580 — HSM5100



Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A	.117	.123	2.97	3.12	
B	.260	.280	6.60	7.11	
C	.220	.245	5.59	6.22	
D	.307	.322	7.80	8.18	
E	.075	.095	1.91	2.41	
F	.380	.400	9.65	10.16	
G	.025	.040	.640	1.02	
H	.030	.060	.760	1.52	

Microsemi Catalog Number	Industry Part Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
HSM580*	SK58L	80V	80V
HSM590*		90V	90V
HSM5100*	SK510L	100V	100V

\* Add Suffix J for J Lead or G for Gull Wing Lead Configuration

- Schottky Barrier Rectifier
- Guard Ring Protection
- High surge capacity
- VRRM 80 to 100 volts
- Surface mount packages

Electrical Characteristics			
Average forward current	I <sub>F(AV)</sub> 5.0 Amps	Square wave, T <sub>L</sub> = 95°C, R <sub>θJL</sub> = 22°C/W	
Maximum surge current	I <sub>FSM</sub> 200 Amps	8.3ms, half sine, T <sub>J</sub> = 175°C	
Max peak forward voltage	V <sub>FM</sub> .60 Volts	I <sub>FM</sub> = 1A; T <sub>J</sub> = 25°C *	
Max peak forward voltage	V <sub>FM</sub> .80 Volts	I <sub>FM</sub> = 5A; T <sub>J</sub> = 25°C *	
Max peak reverse current	I <sub>RM</sub> 250 μA	V <sub>R</sub> = 5.0V, T <sub>J</sub> = 25°C	
Typical junction capacitance	C <sub>J</sub> 280 pF	V <sub>R</sub> = 5.0V, T <sub>J</sub> = 25°C	

\*Pulse test: Pulse width 300 μsec, Duty cycle 2%

Thermal and Mechanical Characteristics		
Storage temperature range	T <sub>STG</sub>	-55°C to 175°C
Operating junction temp range	T <sub>J</sub>	-55°C to 175°C
Maximum thermal resistance	R <sub>θJL</sub>	22°C/W Junction to lead
Weight		.008 ounces (.22 grams) typical



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05-15-07 Rev. 5

# HSM580 — HSM5100

Figure 1  
Typical Forward Characteristics

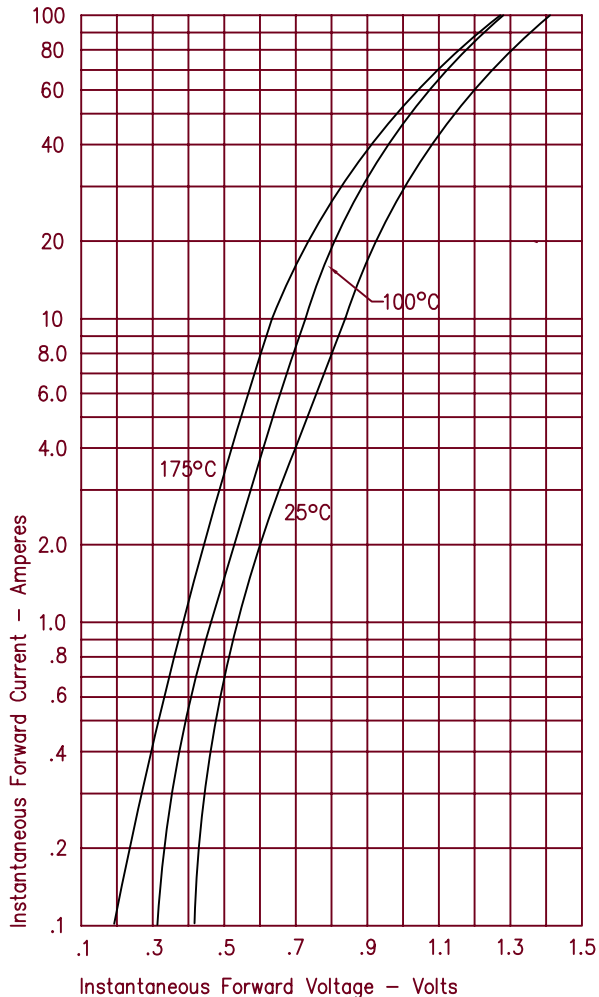


Figure 3  
Typical Junction Capacitance

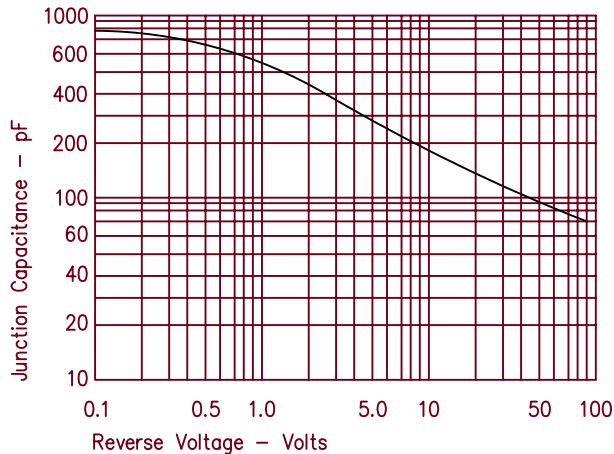


Figure 4  
Forward Current Derating

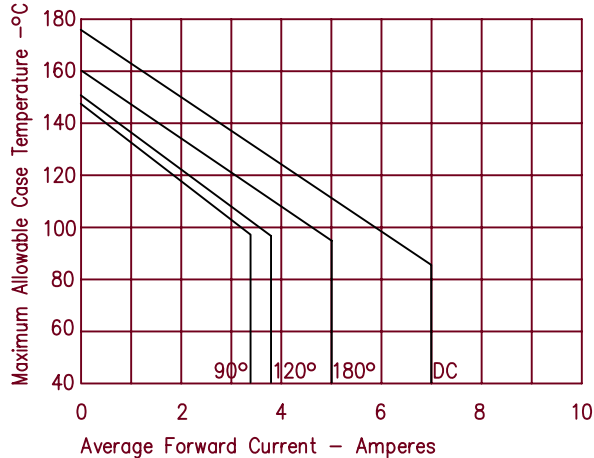


Figure 2  
Typical Reverse Characteristics

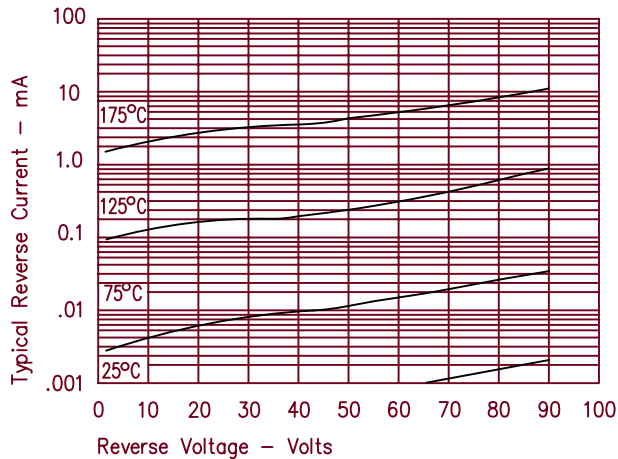


Figure 5  
Maximum Power Dissipation

