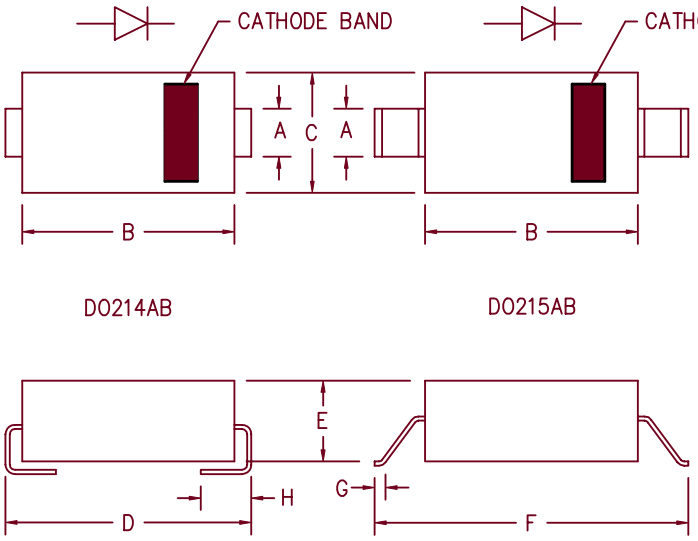
5 Amp Schottky Rectifier

HSM580 – HSM5100



Dim.	Inches		Millimeter		
	Minimum	Maximum	Minimum	Maximum	Notes
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	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
HSM580*	80V	80V
HSM590*	90V	90V
HSM5100*	100V	100V

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

- Schottky Barrier Rectifier
- Guard Ring Protection
- High surge capacity
- V_{RRm} 80 to 100 volts
- Surface mount packages

Electrical Characteristics

Average forward current	$I_{F(AV)}$ 5.0 Amps	Square wave
Maximum surge current	I_{FSM} 200 Amps	8.3ms, half sine, T_J = 175°C
Max peak forward voltage	V_{FM} .60 Volts	I_{FM} = 5A; T_J = 25°C*
Max peak forward voltage	V_{FM} .80 Volts	I_{FM} = 5A; T_J = 25°C*
Max peak reverse current	I_{RM} 250 µA	V_{RRM}, T_J = 25°C
Typical junction capacitance	C_J 280 pF	V_R = 5.0V, T_J = 25°C

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

Thermal and Mechanical Characteristics

Storage temperature range	T_{STG}	−55°C to 175°C
Operating junction temp range	T_J	−55°C to 175°C
Maximum thermal resistance	$R_{\Theta JL}$	22°C/W Junction to case
Weight		.008 ounces (.22 grams) typical

3–27–00 Rev. 1

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Figure 1
Typical Forward Characteristics

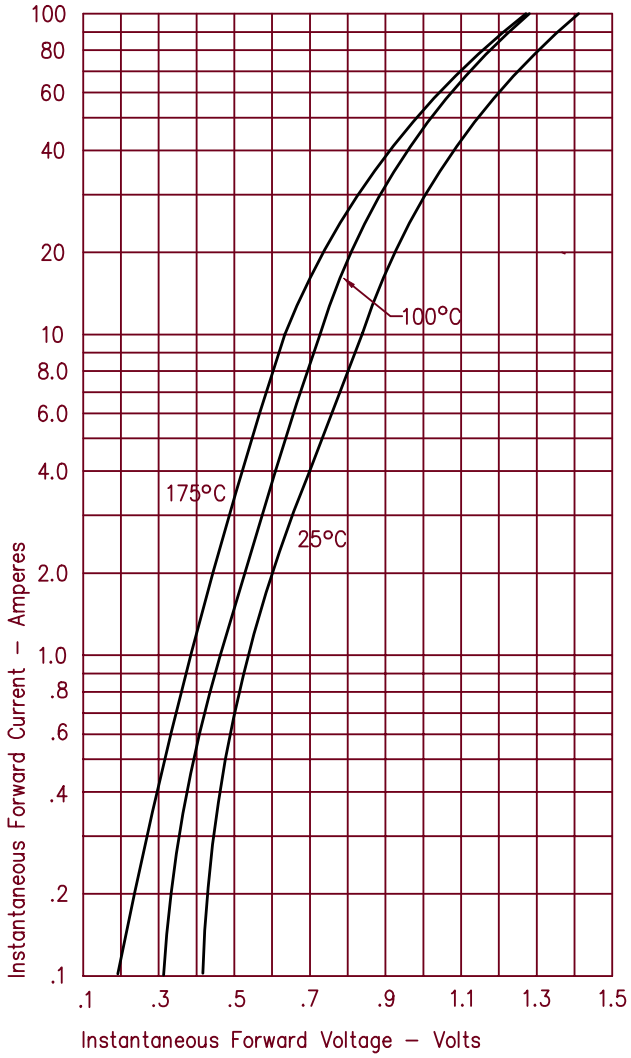


Figure 2
Typical Reverse Characteristics

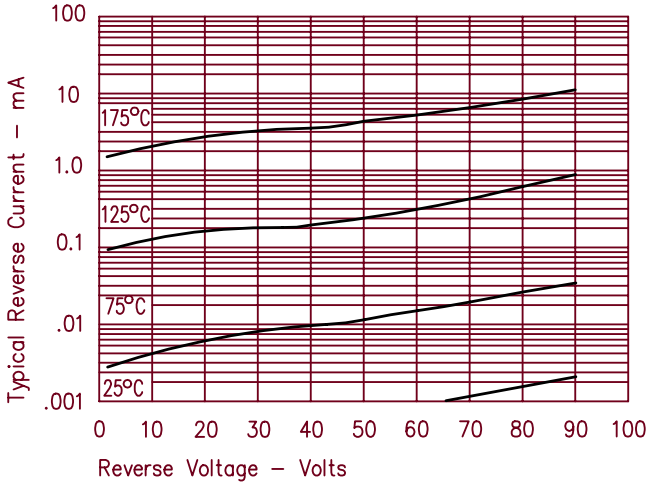
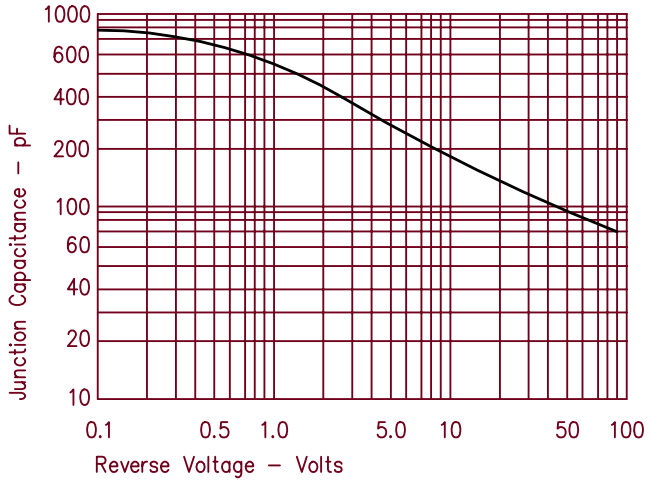


Figure 3
Typical Junction Capacitance



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