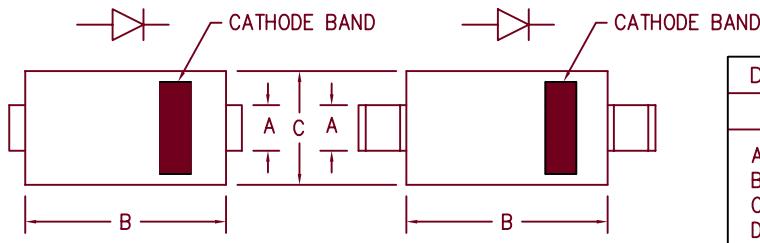


# 5 Amp Schottky Rectifier

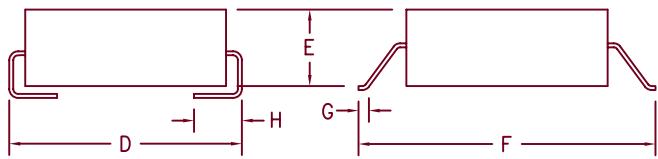
## HSM580 — HSM5100



DO214AB

DO215AB

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
- $\text{VR}_{\text{Rm}}$  80 to 100 volts
- Surface mount packages

### Electrical Characteristics

Average forward current	$I_{F(AV)}$ 5.0 Amps	Square wave, $T_L = 95^\circ\text{C}$ , $R_{\theta JL} = 22^\circ\text{C}/\text{W}$
Maximum surge current	$I_{FSM}$ 200 Amps	8.3ms, half sine, $T_J = 175^\circ\text{C}$
Max peak forward voltage	$V_{FM}$ .60 Volts	$I_{FM} = 1\text{A}; T_J = 25^\circ\text{C}$ *
Max peak forward voltage	$V_{FM}$ .80 Volts	$I_{FM} = 5\text{A}; T_J = 25^\circ\text{C}$ *
Max peak reverse current	$I_{RM}$ 250 $\mu\text{A}$	$\text{VR}_{\text{RM}}, T_J = 25^\circ\text{C}$
Typical junction capacitance	$C_J$ 280 pF	$\text{VR} = 5.0\text{V}, T_J = 25^\circ\text{C}$

\*Pulse test: Pulse width 300  $\mu\text{sec}$ , 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 lead
Weight		.008 ounces (.22 grams) typical

 **Microsemi**

SCOTTSDALE

8700 East Thomas Road, P.O. Box 1390

Scottsdale, AZ 85252

PH: (480) 941-6300

FAX: (480) 947-1503

[www.microsemi.com](http://www.microsemi.com)

05-15-07 Rev. 5

# HSM580 – HSM5100

Figure 1  
Typical Forward Characteristics

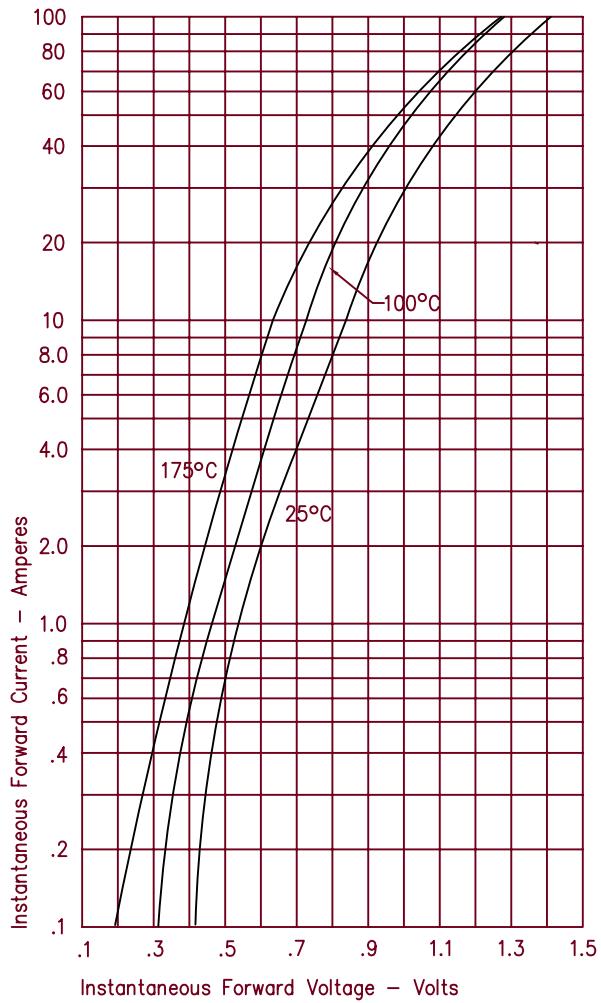


Figure 3  
Typical Junction Capacitance

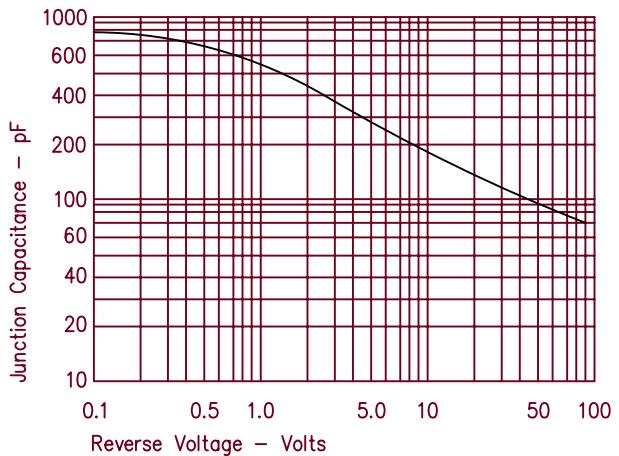


Figure 4  
Forward Current Derating

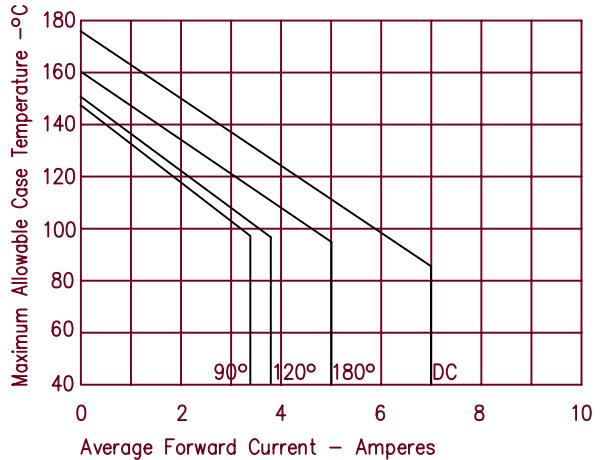


Figure 2  
Typical Reverse Characteristics

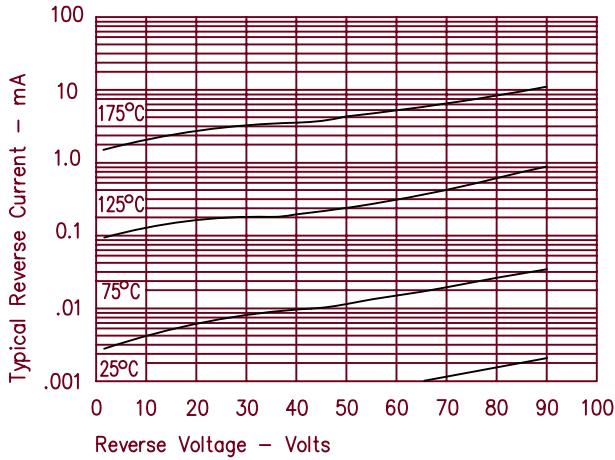


Figure 5  
Maximum Power Dissipation

