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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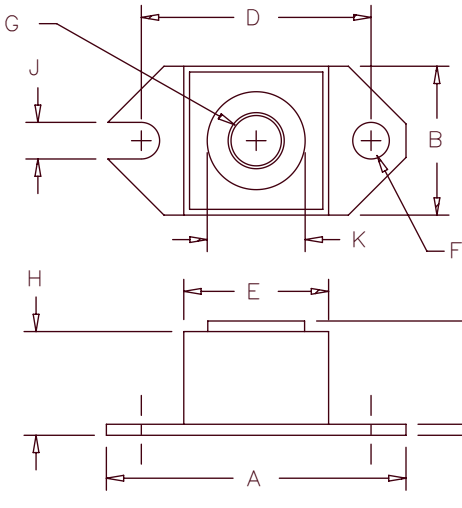
180 Amp Schottky Rectifier
HS18380–HS183100



Std. Polarity
Base is cathode
Rev. Polarity
Base is anode

Dim.	Inches		Millimeter		
	Minimum	Maximum	Minimum	Maximum	Notes
A	1.52	1.56	38.61	39.62	
B	.725	.775	18.42	19.69	
C	.605	.625	15.37	15.88	
D	1.182	1.192	30.02	30.28	
E	.745	.755	18.92	19.18	Sq.
F	.152	.160	3.86	4.06	Dia.
G		1/4–20	UNC–2B		
H	.525	.580	13.34	14.73	
J	.156	.160	3.96	4.06	
K	.495	.505	12.57	12.83	Dia.
L	.120	.130	3.05	3.30	

Microsemi Catalog Number	Idustry Part Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
HS18380*	183NQ080 MBR20080	80V	80V
HS18390*		90V	90V
HS183100*	183NQ100 MBR200100	100V	100V

*Add suffix R for Reverse Polarity

- Schottky Barrier Rectifier
- Guard Ring Protection
- 180 Amperes/80 to 100 Volts
- 175°C Junction Temperature
- Reverse Energy Tested
- ROHS Compliant

Electrical Characteristics

Average forward current	$I_{F(AV)}$	180 Amps	T_C = 116°C, Square wave, $R_{\theta JC}$ = 0.32°C/W
Maximum surge current	I_{FSM}	2500 Amps	8.3ms, half sine, T_J = 175°C
Maximum repetitive reverse current	$I_{R(OV)}$	2 Amps	f = 1 KHZ, 1μs square wave, T_J = 25°C
Max peak forward voltage	V_{FM}	0.91 Volts	I_{FM} = 180A: T_J = 25°C*
Max peak reverse current	I_{RM}	100mA	V_{RRM}, T_J = 125°C*
Max peak reverse current	I_{RM}	5mA	V_{RRM}, T_J = 25°C
Typical junction capacitance	C_J	4800pF	V_R = 5.0V, T_J = 25°C, f = 1MHz

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

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	$R_{\theta JC}$	0.32°C/W junction to case
Typical thermal resistance (greased)	$R_{\theta CS}$	0.12°C/W case to sink
Terminal Torque		35–40 inch pounds
Mounting Base Torque		20–25 inch pounds
Weight		1.1 ounces (32 grams) typical

HS18380–HS183100

Figure 1
Typical Forward Characteristics

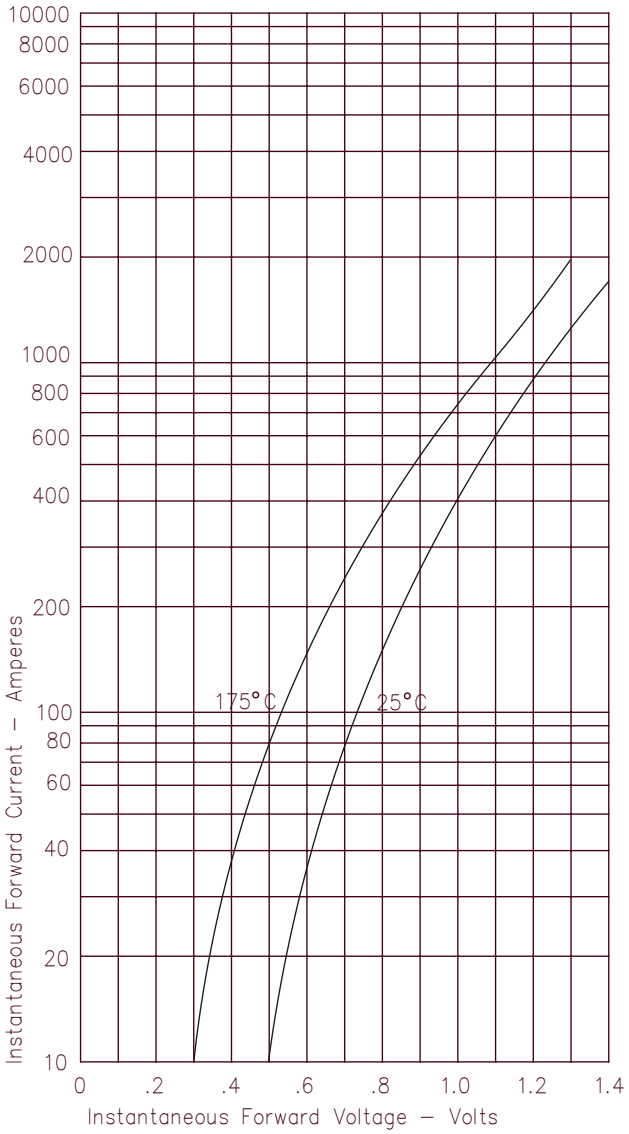


Figure 2
Typical Reverse Characteristics

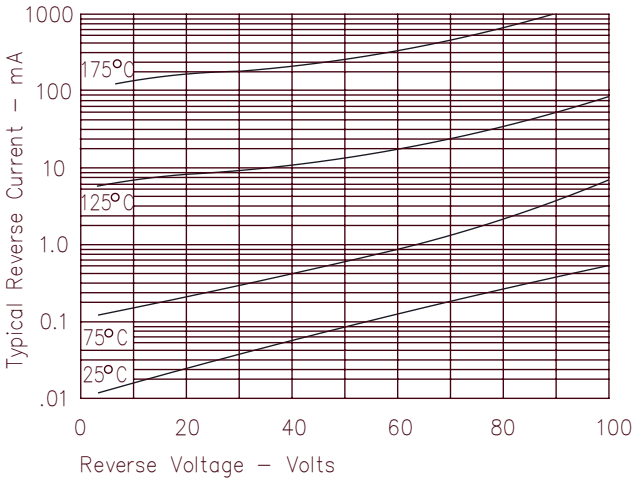


Figure 3
Typical Junction Capacitance

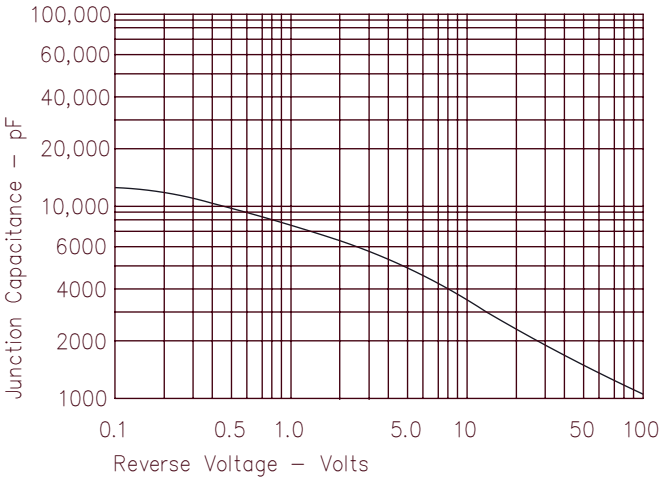


Figure 4
Forward Current Derating

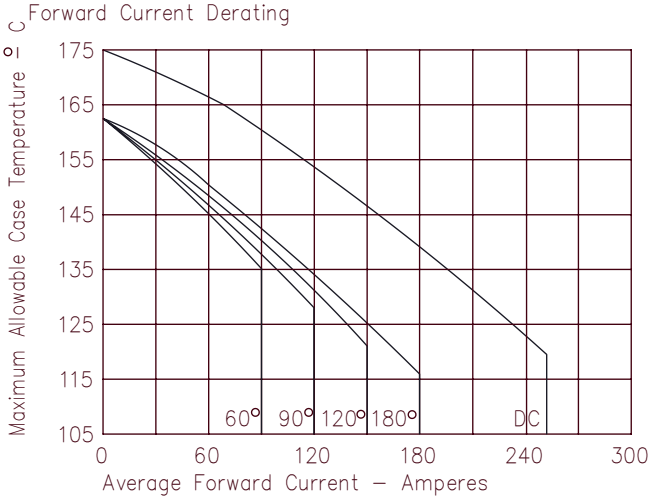
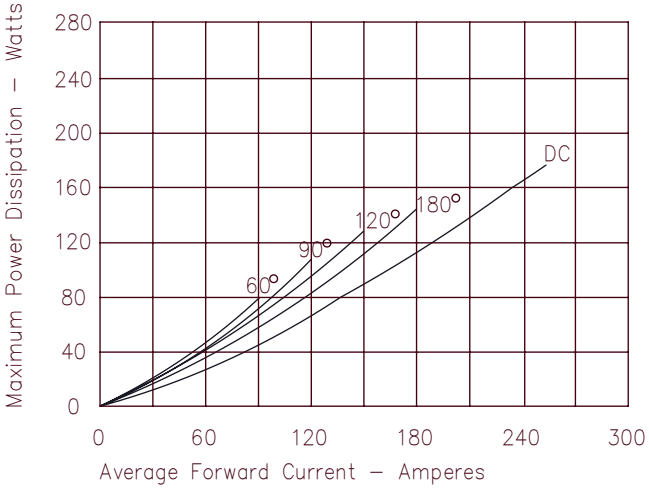


Figure 5
Maximum Forward Power Dissipation



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