



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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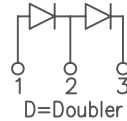
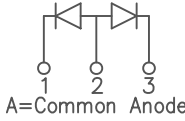
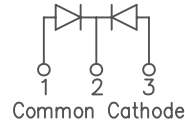
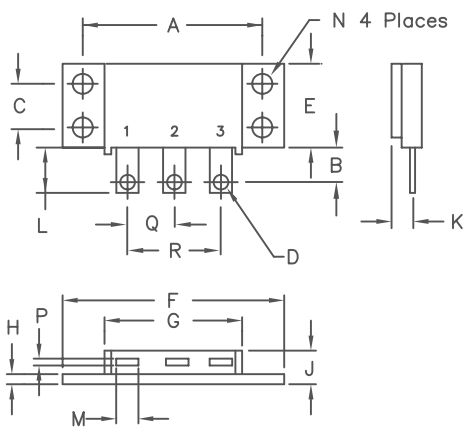
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Schottky PowerMod

FST16135 — FST16145



Notes:
Baseplate: Nickel plated copper;
electrically isolated
Pins: Nickel plated copper

	Dim. Inches		Millimeters		Notes
	Min.	Max.	Min.	Max.	
A	1.995	2.005	50.67	50.93	
B	0.300	0.325	7.62	8.26	
C	0.495	0.505	12.57	12.83	
D	0.182	0.192	4.62	4.88	Dia.
E	0.990	1.010	25.15	25.65	
F	2.390	2.410	60.71	61.21	
G	1.500	1.525	38.10	38.70	
H	0.120	0.130	3.05	3.30	
J	---	0.400	---	10.16	
K	0.240	0.260	6.10	6.60 to	Lead CL
L	0.490	0.510	12.45	12.95	
M	0.330	0.350	8.38	6.90	
N	0.175	0.195	4.45	4.95	Dia.
P	0.035	0.045	0.89	1.14	
Q	0.445	0.455	11.30	11.56	
R	0.890	0.910	22.61	23.11	

TO-249

Microsemi Catalog Number	Microsemi Catalog Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
FST16135*	160CMQ035	35V	35V
FST16140*	160CMQ040	40V	40V
FST16145*	160CMQ045	45V	45V

*Add the Suffix A for Common Anode, D for Doubler

- Schottky Barrier Rectifier
- Guard Ring for Reverse Protection
- Low Forward Voltage
- V_{RRM} 35 to 45 Volts
- Electrically Isolated base
- Reverse Energy Tested
- Center top

Electrical Characteristics

Average forward current per pkg	$I_{F(AV)}$ 160 Amps	$T_C = 67^\circ C$, Square wave, $R_{\theta JC} = 0.5^\circ C/W$
Average forward current per leg	$I_{F(AV)}$ 80 Amps	$T_C = 67^\circ C$, Square wave, $R_{\theta JC} = 1.0^\circ C/W$
Maximum surge current per leg	I_{FSM} 1000 Amps	8.3 ms, half sine $T_J = 175^\circ C$
Max repetitive peak reverse current per leg	$I_{R(OV)}$ 2 Amps	$f = 1$ KHz, $25^\circ C$, 1 μ sec Square wave
Max peak forward voltage per leg	V _{FM} .61 Volts	I _{FM} = 80A: $T_J = 125^\circ C^*$
Max peak forward voltage per leg	V _{FM} .65 Volts	I _{FM} = 80A: $T_J = 25^\circ C^*$
Max peak reverse current per leg	I _{RM} 500 mA	V_{RRM} , $T_J = 125^\circ C^*$
Max peak reverse current per leg	I _{RM} 2 mA	V_{RRM} , $T_J = 25^\circ C$
Typical junction capacitance per leg	C_J 2700 pF	$V_R = 5.0V$, $T_J = 25^\circ C$

*Pulse test: Pulse width 300 μ sec, 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
Maximum thermal resistance per leg	R _{θJC}	1.0°C/W Junction to case
Maximum thermal resistance per pkg.	R _{θJC}	0.5°C/W Junction to case
Typical thermal resistance (greased)	R _{θCS}	0.1°C/W Case to sink
Mounting torque		15 - 20 inch pounds
Weight		2.5 ounces (71 grams) typical

FST16135 — FST16145

Figure 1
Typical Forward Characteristics – Per Leg

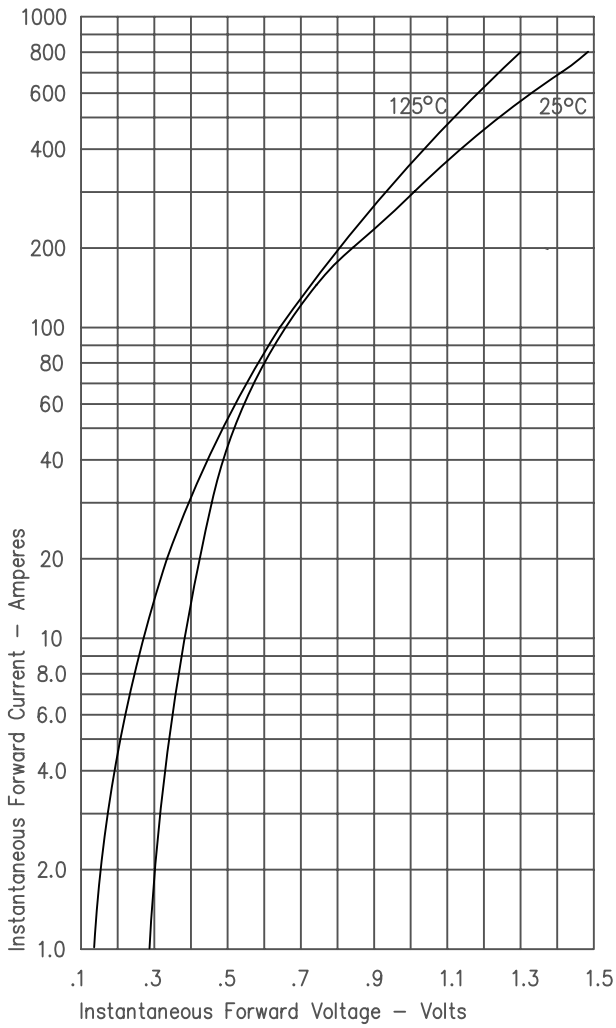


Figure 3
Typical Junction Capacitance – Per Leg

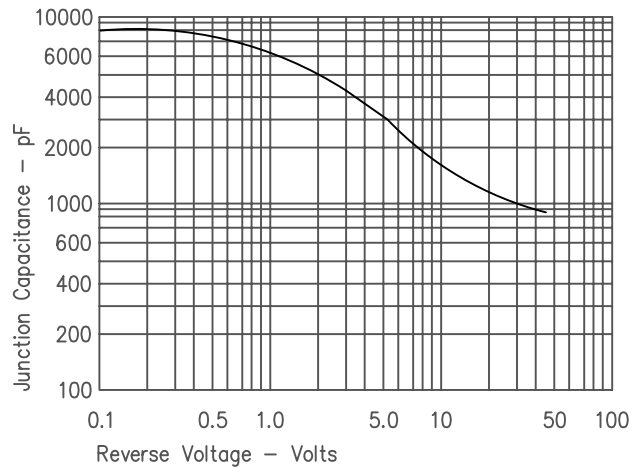


Figure 4
Forward Current Derating – Per Leg

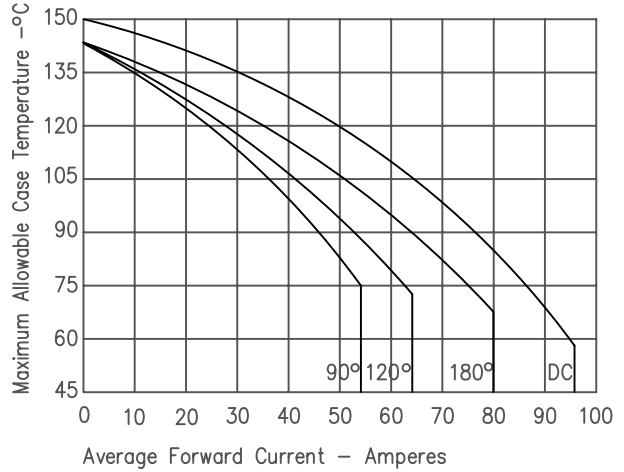


Figure 2
Typical Reverse Characteristics – Per Leg

