MOSPEC

MS17 thru MS19

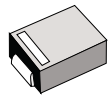
Suface Mount
Schottky Barrier Rectifiers

Using the Schottky Barrier principle with a Molybdenum barrier metal. These state-of-the-art geometry features epitaxial construction with oxide passivation and metal overlay contact. Ideally suited for low voltage, high frequency rectification, or as free wheeling and polarity protection diodes, in surface mount applications where compact size and weight are critical to the system.

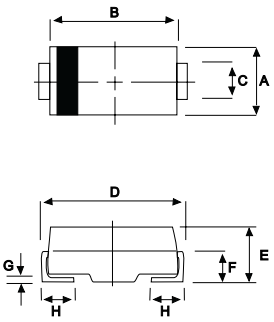
* Low Forward Voltag.
* Low Switching noise.
* High Current Capacity
* Guarantee Reverse Avalance.
* Guard-Ring for Stress Protection.
* Low Power Loss & High efficiency.
* 125 °C Operating Junction Temperature
* Low Stored Charge Majority Carrier Cnduction.
* Plastic Material used Carries Underwriters Laboratory Flammability Classification 94V-O

SCHOTTKY BARRIER RECTIFIERS

1.0 AMPERES
20-40 VOLTS



DO-214AA(SMB)



DIM	MILLMETERS	
	MIN	MAX
A	3.30	3.90
B	4.20	4.60
C	1.80	2.20
D	4.90	5.60
E	1.90	2.50
F	---	1.30
G	---	0.22
H	0.85	1.45

CASE---
Transfer molded plastic

POLARITY---
Cathode indicated polarity band

MAXIMUM RATINGS

Characteristic	Symbol	MS17	MS18	MS19	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	20	30	40	V
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	V
Average Rectifier Forward Current	I_O	1.0			A
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions halfware,single phase,60Hz)	I_{FSM}	25			A
Operating and Storage Junction Temperature Range	T_J , T_{stg}	- 65 to + 125			°C

ELECTRICAL CHARACTERISTICS

Characteristic	Symbol	MS17	MS18	MS19	Unit
Maximum Instantaneous Forward Voltage (I_F=1.0 Amp) (I_F=3.0 Amp)	V_F	 0.450 0.750	 0.550 0.875	 0.600 0.900	V
Maximum Instantaneous Reverse Current (Rated DC Voltage, T_C = 25 °C) (Rated DC Voltage, T_C = 100 °C)	I_R	 1.0 20			mA
Typical Junction Capacitance (Reverse Voltage of 4 volts & f=1 MHz)	C_P	90	80		pF

MS17

FIG-1 FORWARD CURRENT DERATING CURVE

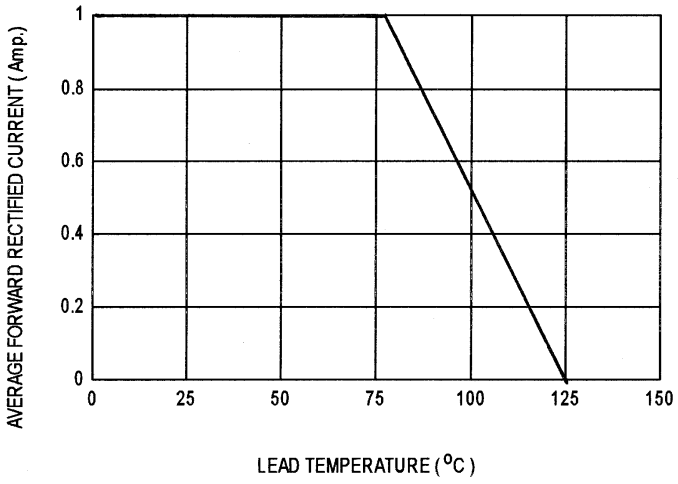


FIG-2 TYPICAL FORWARD CHARACTERISTICS

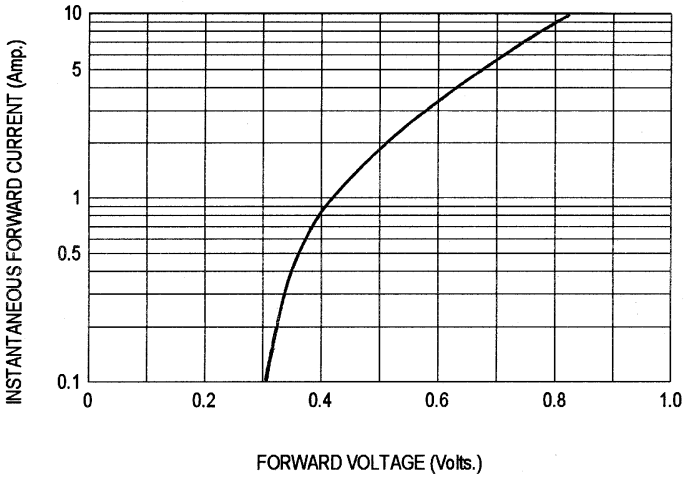


FIG-3 TYPICAL REVERSE CHARACTERISTICS

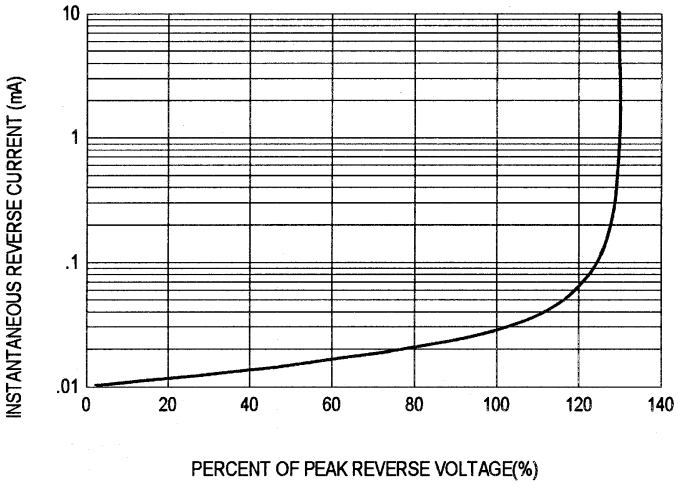


FIG-4 TYPICAL JUNCTION CAPACITANCE

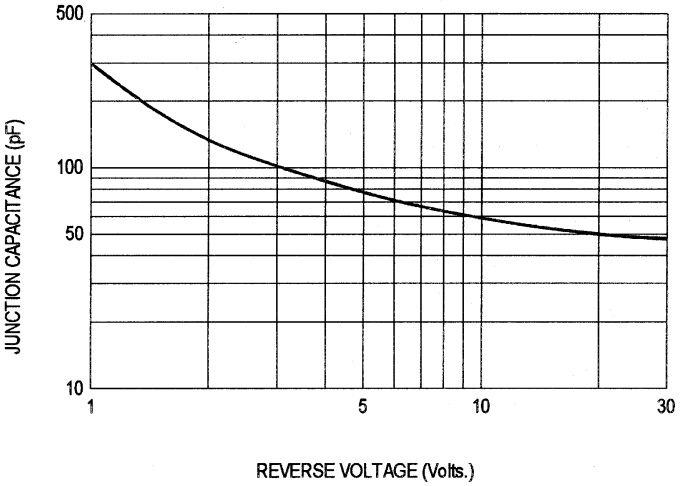


FIG-5 PEAK FORWARD SURGE CURRENT

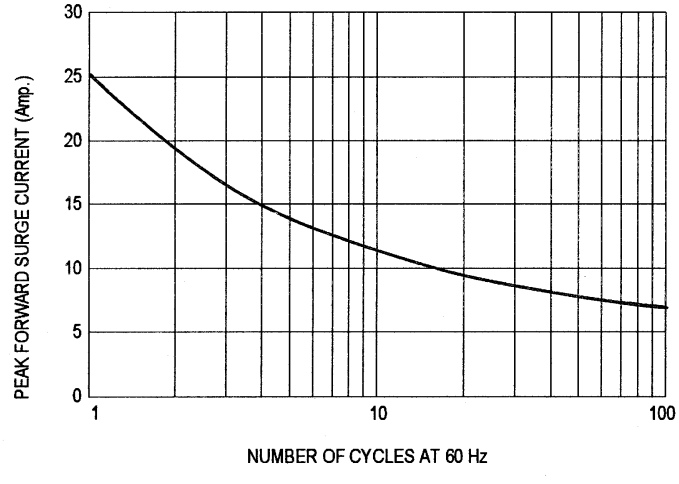


FIG-1 FORWARD CURRENT DERATING CURVE

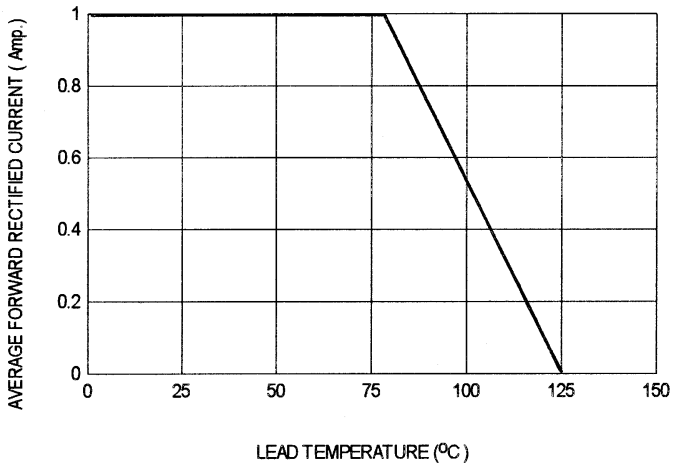


FIG-2 TYPICAL FORWARD CHARACTERISTICS

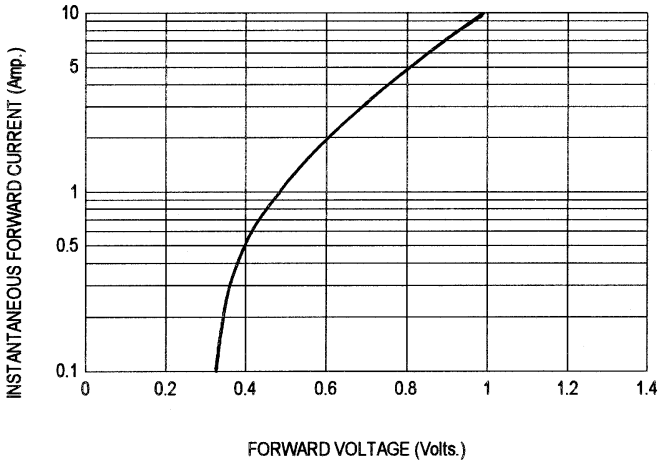
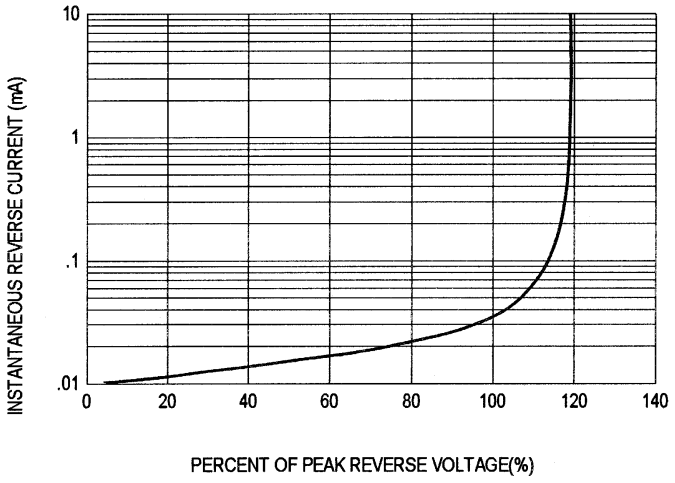


FIG-3 TYPICAL REVERSE CHARACTERISTICS



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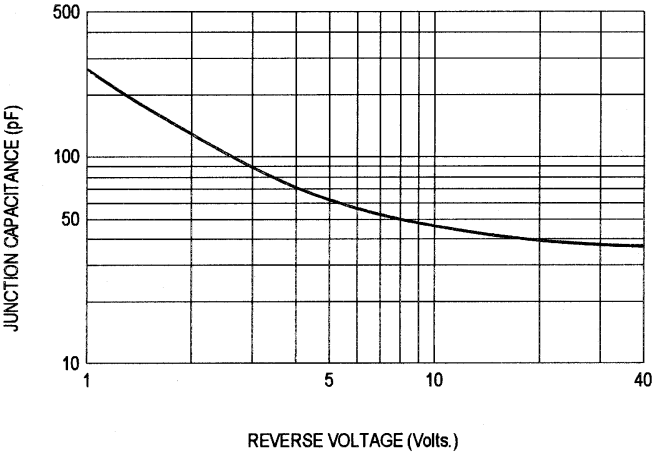

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