

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

MAXIMUM RATINGS

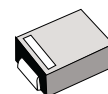
Characteristic	Symbol	SR				Unit
		57	58	59	510	
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	70	80	90	100	V
RMS Reverse Voltage	$V_{R(RMS)}$	49	56	63	70	V
Average Rectifier Forward Current	I_O	5.0				A
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions halfwave, single phase, 60Hz)	I_{FSM}	90				A
Operating and Storage Junction Temperature Range	T_J, T_{stg}	- 65 to + 125				°C

ELECTRICAL CHARACTERISTICS

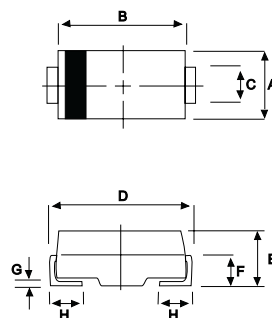
Characteristic	Symbol	SR				Unit
		507	508	509	5100	
Maximum Instantaneous Forward Voltage (I _F =5 Amp)	V _F	0.75		0.85		V
Maximum Instantaneous Reverse Current (Rated DC Voltage, T _C = 25 °C) (Rated DC Voltage, T _C = 100 °C)	I _R	5.0 50				mA
Typical Junction Capacitance (Reverse Voltage of 4 volts & f=1 MHz)	C _P	300		275		pF

SCHOTTKY BARRIER RECTIFIERS

**5.0 AMPERES
70 -100 VOLTS**



DO-214AA(SMB)



DIM	MILLIMETERS	
	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

FIG-1 FORWARD CURRENT DERATING CURVE

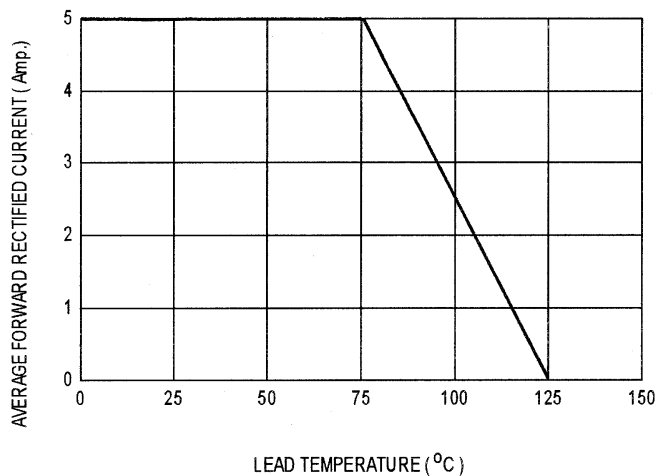


FIG-2 TYPICAL FORWARD CHARACTERISTICS

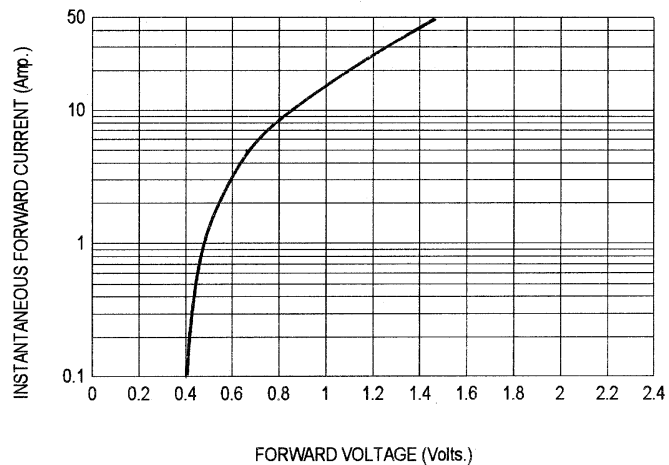


FIG-3 TYPICAL REVERSE CHARACTERISTICS

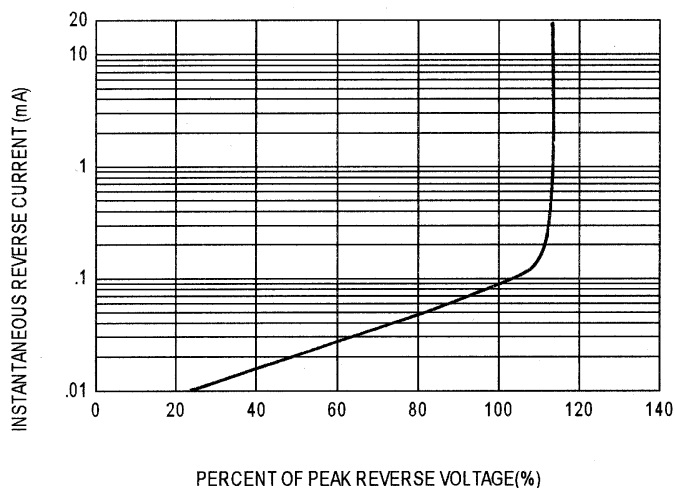


FIG-4 TYPICAL JUNCTION CAPACITANCE

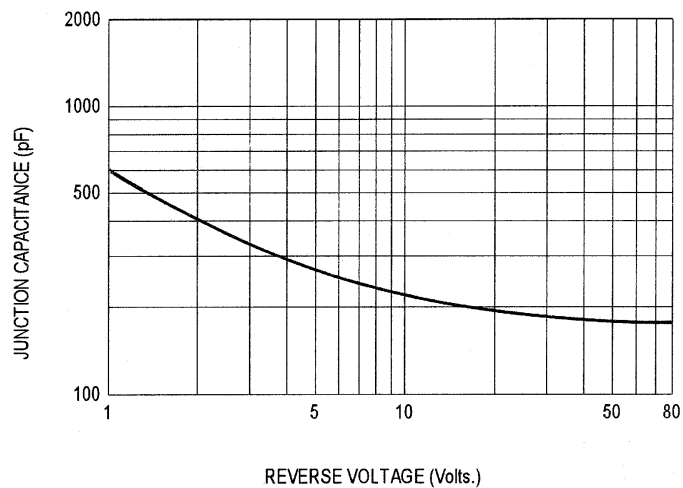


FIG-5 PEAK FORWARD SURGE CURRENT

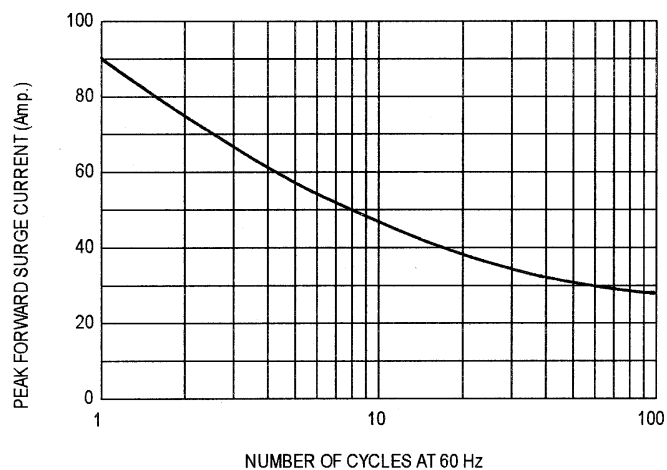


FIG-1 FORWARD CURRENT DERATING CURVE

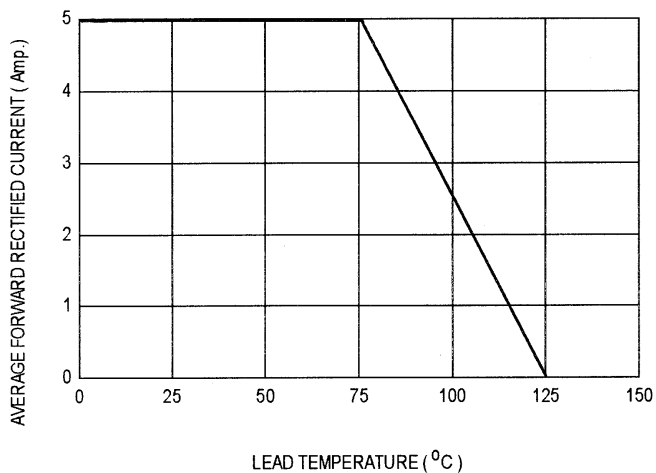


FIG-2 TYPICAL FORWARD CHARACTERISTICS

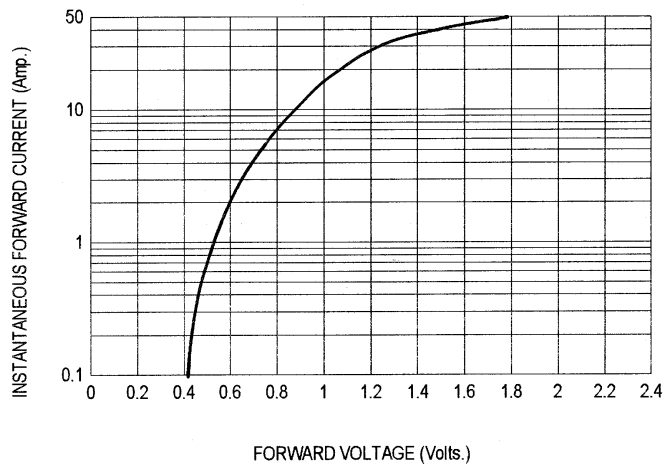


FIG-3 TYPICAL REVERSE CHARACTERISTICS

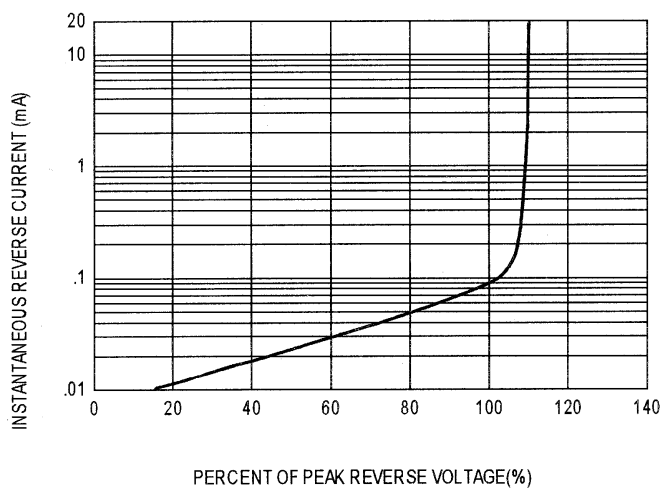


FIG-4 TYPICAL JUNCTION CAPACITANCE

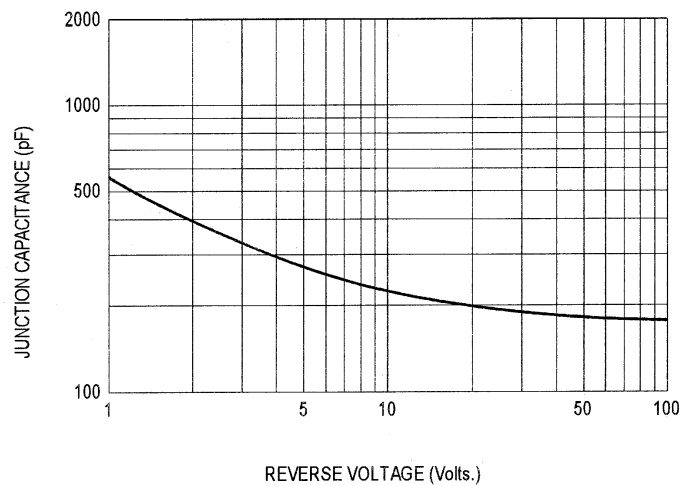
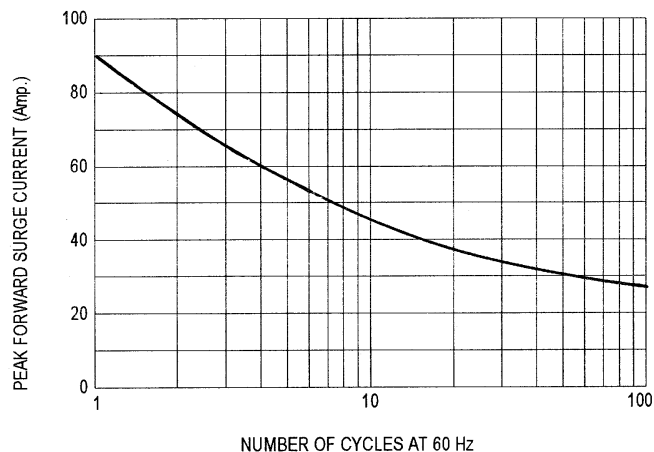


FIG-5 PEAK FORWARD SURGE CURRENT



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