

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 Avalance.
- * 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	SR12	SR13	SR14	SR15	SR16	Unit
Peak Repetitive Reverse Voltage	V_{RRM}						V
Working Peak Reverse Voltage	V_{RWM}	20	30	40	50	60	V
DC Blocking Voltage	V_R						V
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	35	42	V
Average Rectifier Forward Current	I_O	1.0					A
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions halfwave, single phase, 60Hz)	I_{FSM}	25					A
Operating and Storage Junction Temperature Range	T_J, T_{stg}	- 65 to + 125					°C

ELECTRICAL CHARACTERISTICS

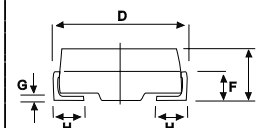
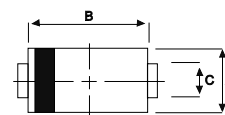
Characteristic	Symbol	SR12	SR13	SR14	SR15	SR16	Unit
Maximum Instantaneous Forward Voltage ($I_F=1.0$ Amp) ($I_F=3.0$ Amp)	V_F		0.550 0.725		0.650 0.820		V
Maximum Instantaneous Reverse Current (Rated DC Voltage, $T_C = 25$ °C) (Rated DC Voltage, $T_C = 125$ °C)	I_R			0.5 20			mA
Typical Junction Capacitance (Reverse Voltage of 4 volts & $f=1$ MHz)	C_P		100		70		pF

SCHOTTKY BARRIER RECTIFIERS

1.0 AMPERES
20-60 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

SR12 Thru SR14

FIG-1 FORWARD CURRENT DERATING CURVE

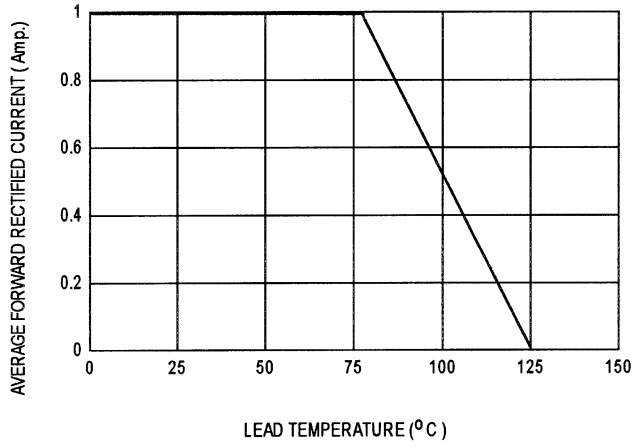


FIG-2 TYPICAL FORWARD CHARACTERISTICS

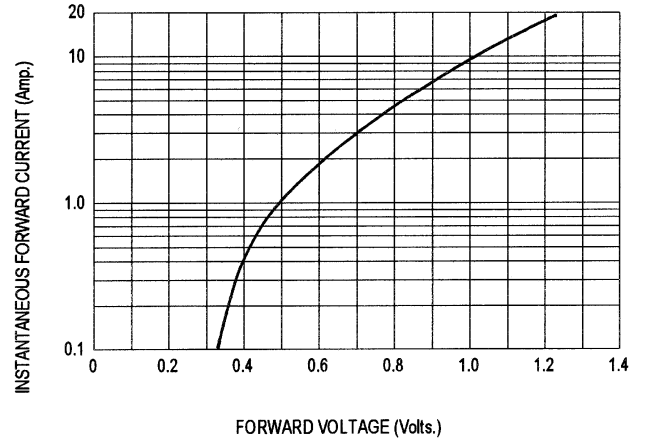


FIG-3 TYPICAL REVERSE CHARACTERISTICS

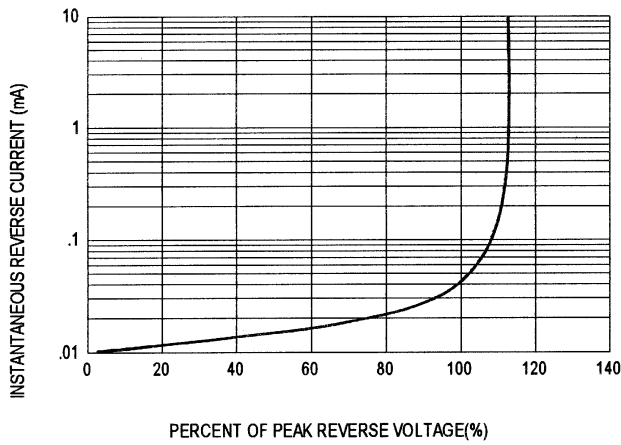


FIG-4 TYPICAL JUNCTION CAPACITANCE

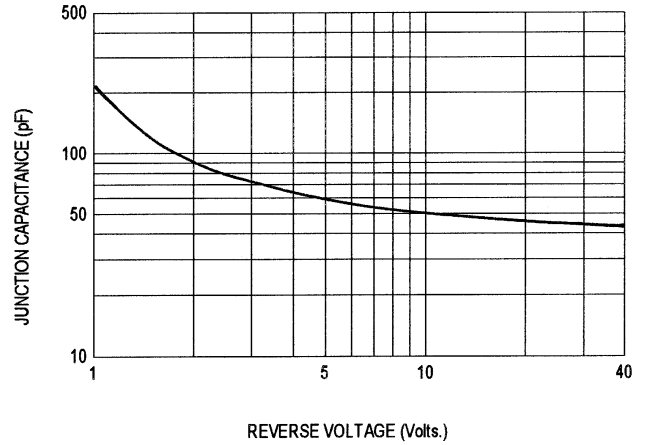
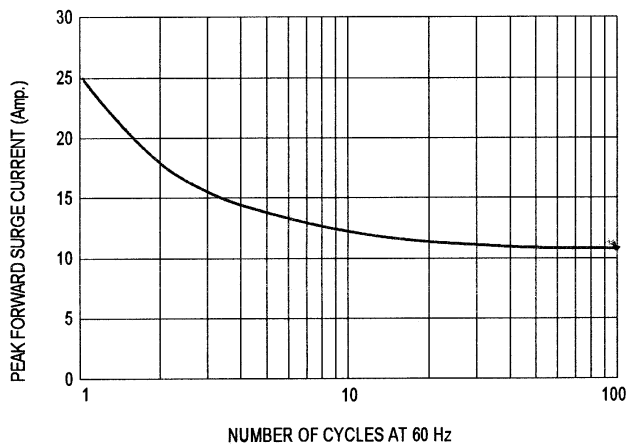


FIG-5 PEAK FORWARD SURGE CURRENT



SR15 , SR16

FIG-1 FORWARD CURRENT DERATING CURVE

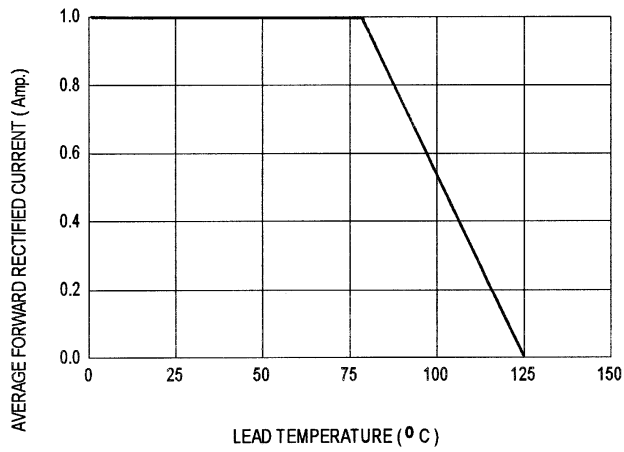


FIG-2 TYPICAL FORWARD CHARACTERISTICS

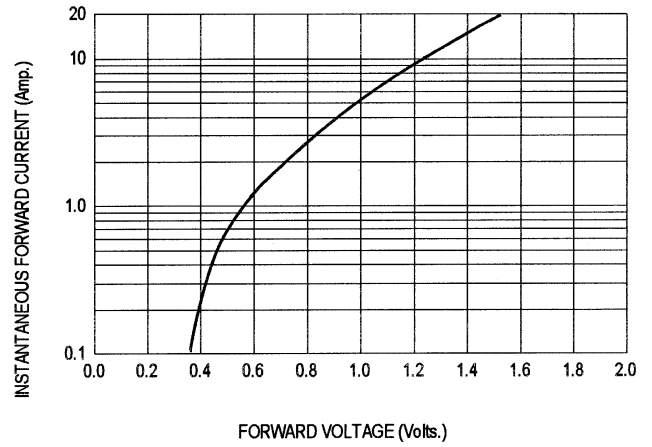


FIG-3 TYPICAL REVERSE CHARACTERISTICS

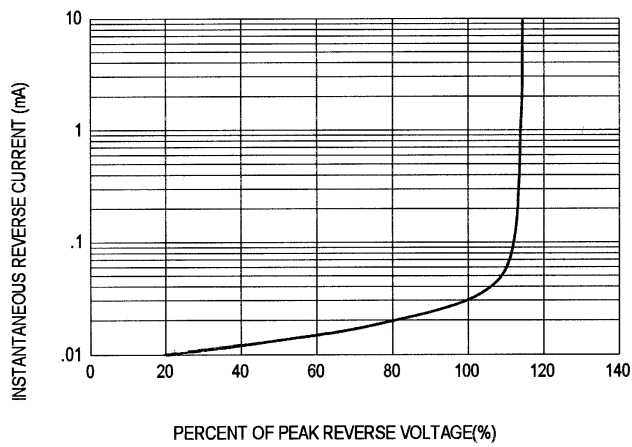


FIG-4 TYPICAL JUNCTION CAPACITANCE

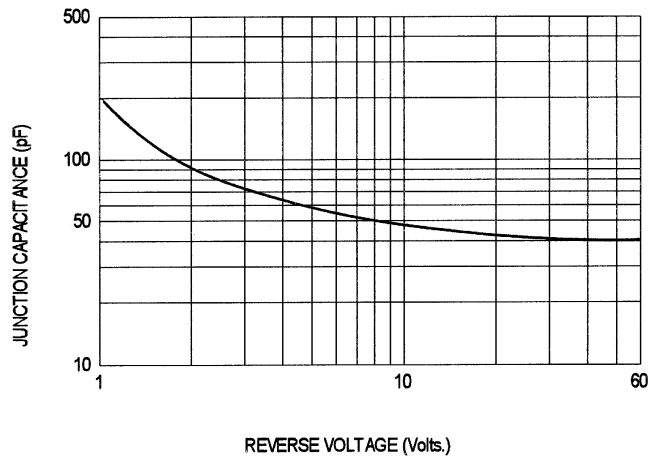


FIG-5 PEAK FORWARD SURGE CURRENT

