

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.

Features

- * Low Forward Voltage.
- * Low Switching noise.
- * High Current Capacity
- * Guarantee Reverse Avalanche.
- * Guard-Ring for Stress Protection.
- * Low Power Loss & High efficiency.
- * 150°C Operating Junction Temperature
- * Low Stored Charge Majority Carrier Conduction.
- * Plastic Material used Carries Underwriters Laboratory Flammability Classification 94V-O
- * Moisture Sensitivity Level: MSL-1



* In compliance with EU RoHS 2002/95/EC directives
The marking is indicated by part no. with "M". ex:SR107M~SR1100M

MAXIMUM RATINGS

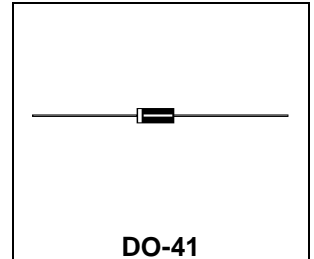
Characteristic	Symbol	SR107	SR108	SR109	SR1100	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	70	80	90	100	V
RMS Reverse Voltage	$V_{R(RMS)}$	49	56	63	70	V
Average Rectifier Forward Current	I_O	1.0				A
Non-Repetitive Peak Surge Current (Surge 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 +150				°C

ELECTRIAL CHARACTERISTICS

Characteristic	Symbol	SR107	SR108	SR109	SR1100	Unit
Maximum Instantaneous Forward Voltage ($I_F = 1$ Amp)	V_F	0.75		0.85		V
Maximum Instantaneous Reverse Current (Rated DC Voltage, $T_C = 25^\circ\text{C}$) (Rated DC Voltage, $T_C = 125^\circ\text{C}$)	I_R	0.5 20				mA
Maxmum Thermal Resistance Junction to case	R_{thJC}	60				°C/W
Typical Junction Capacitance (Reverse Voltage of 4 volts & $f=1$ MHz)	C_P	70		60		pF

SCHOTTKY BARRIER RECTIFIERS

**1.0 AMPERES
70-100 VOLTS**



DIM	MILLIMETERS	
	MIN	MAX
A	2.00	2.70
B	25.40	---
C	4.10	5.20
D	0.70	0.90

CASE---
Transfer molded plastic

POLARITY---
Cathode indicated polarity band

SR107 Thru SR1100

FIG-1 FORWARD CURRENT DERATING CURVE

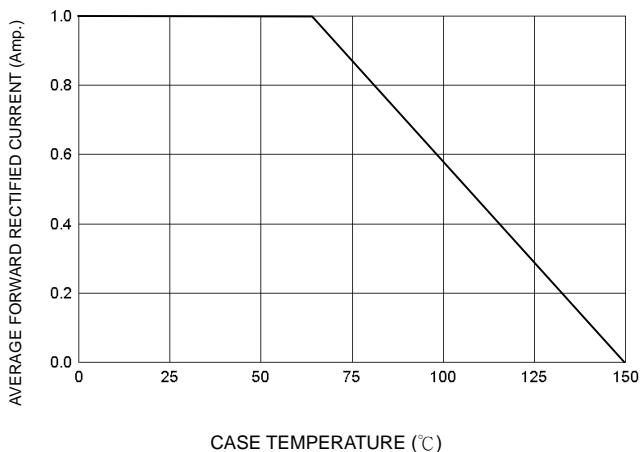


FIG-2 TYPICAL FORWARD CHARACTERISTICS

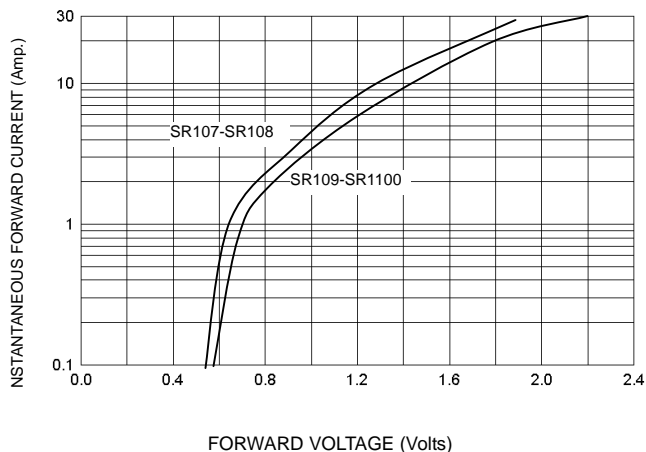


FIG-3 TYPICAL REVERSE CHARACTERISTICS

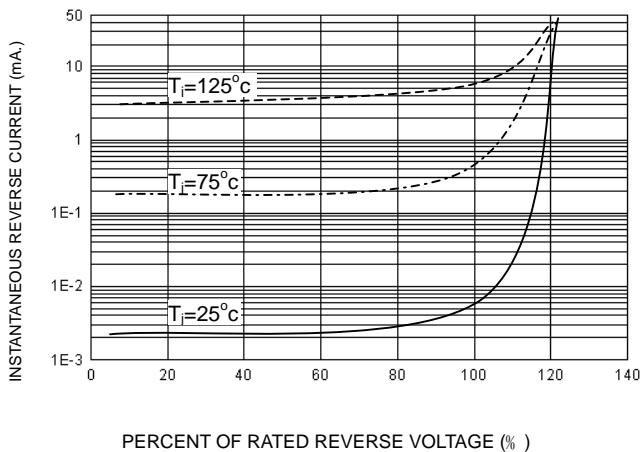


FIG-4 TYPICAL JUNCTION CAPACITANCE

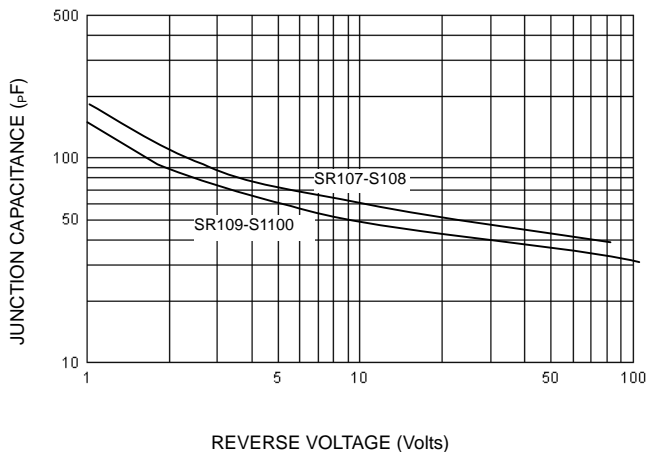
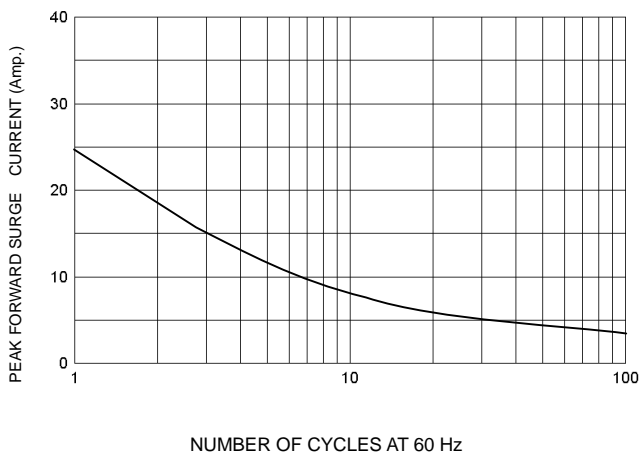


FIG-5 PEAK FORWARD SURGE CURRENT



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