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.

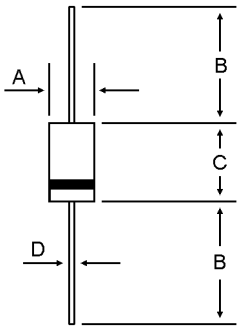
- ∗Low Forward Voltage.
- ∗Low Switching noise.
- ∗High Current Capacity
- ∗Guarantee Reverse Avalanche.
- ∗Guard-Ring for Stress Protection.
- ∗Low Power Loss & High efficiency.
- ∗150℃ Operating Junction Temperature
- ∗Low Stored Charge Majority Carrier Conduction.
- ∗Plastic Material used Carries 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:SR102M~SR106M

SCHOTTKY BARRIER RECTIFIERS

1.0 AMPERES
20-60 VOLTS

DO-41



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

MAXIMUM RATINGS

Characteristic	Symbol	SR102	SR103	SR104	SR105	SR106	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	20	30	40	50	60	V
RMS Reverse Voltage	$VR_{(RMS)}$	14	21	28	28	42	V
Average Rectifier Forward Current	I_O	1.0					A
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions half-wave, single phase,60Hz)	I_{FSM}	40					A
Operating and Storage Junction Temperature Range	T_J , T_{STG}	-65 to +150					℃

ELECTRIAL CHARACTERISTICS

Characteristic	Symbol	SR102	SR103	SR104	SR105	SR106	Unit
Maximum Instantaneous Forward Voltage (I_F =1.0 Amp) (I_F =3.0 Amp)	V_F	0.550 0.750			0.700 0.850		V
Maximum Instantaneous Reverse Current (Rated DC Voltage, T_C = 25℃) (Rated DC Voltage, T_C = 125℃)	I_R	0.5 10					mA
Maximum Thermal Resistance Junction to Case	$R_{\theta JC}$	60					°C/W
Typical Junction Capacitance (Reverse Voltage of 4 volts & f=1 MHz)	C_P	90			80		pF

SR102 Thru SR106

FIG-1 FORWARD CURRENT DERATING CURVE

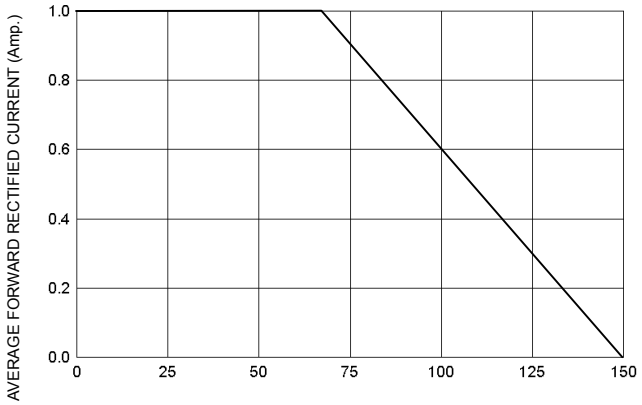


FIG-2 TYPICAL FORWARD CHARACTERISITICS

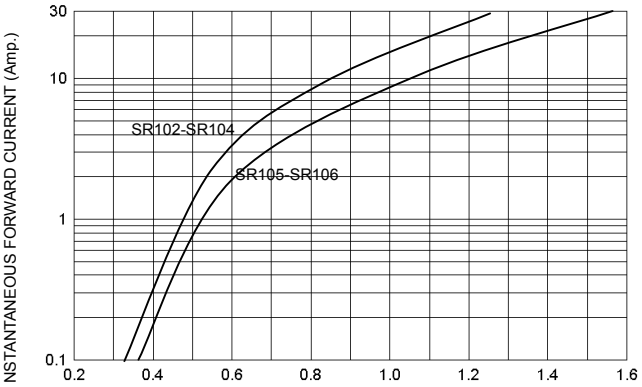


FIG-3 TYPICAL REVERSE CHARACTERISTICS

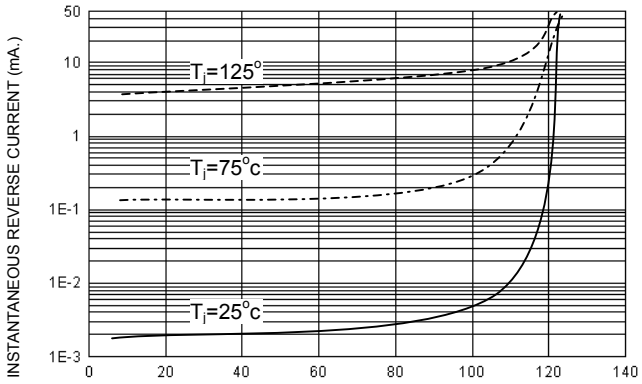


FIG-4 TYPICAL JUNCTION CAPACITANCE

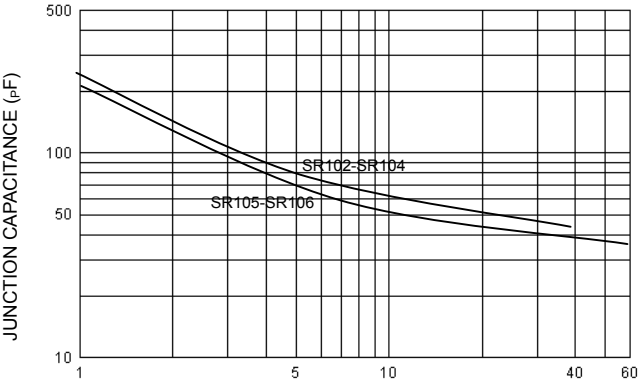
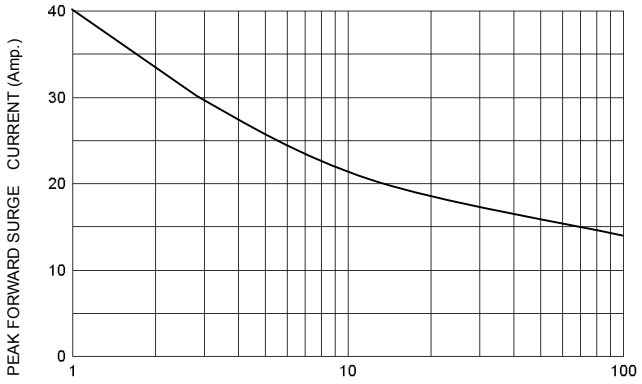


FIG-5 PEAK FORWARD SURGE CURRENT



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