

## 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.
- \* 125 °C Operating Junction Temperature
- \* Low Stored Charge Majority Carrier Conduction.
- \* Plastic Material used Carries Underwriters Laboratory Flammability Classification 94V-O

### SCHOTTKY BARRIER RECTIFIERS

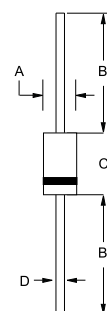
**1.0 AMPERES  
20-60 VOLTS**



**DO-41**

## 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	$V_{R(RMS)}$	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 )	$I_{FSM}$	40					A
Operating and Storage Junction Temperature Range	$T_J, T_{stg}$	- 65 to + 125					°C



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

## ELECTRICAL CHARACTERISTICS

Characteristic	Symbol	SR102	SR103	SR104	SR105	SR106	Unit
Maximum Instantaneous Forward Voltage ( I <sub>F</sub> =1.0 Amp ) ( I <sub>F</sub> =3.0 Amp )	V <sub>F</sub>	0.550 0.750			0.700 0.850		V
Maximum Instantaneous Reverse Current ( Rated DC Voltage, T <sub>C</sub> = 25 °C) ( Rated DC Voltage, T <sub>C</sub> = 125 °C)	I <sub>R</sub>	1.0 50					mA
Typical Junction Capacitance ( Reverse Voltage of 4 volts & f=1 MHz)	C <sub>P</sub>	90			80		pF

CASE---  
Transfer molded  
plastic

POLARITY---  
Cathode indicated  
polarity band

# SR102 Thru SR104

FIG-1 FORWARD CURRENT DERATING CURVE

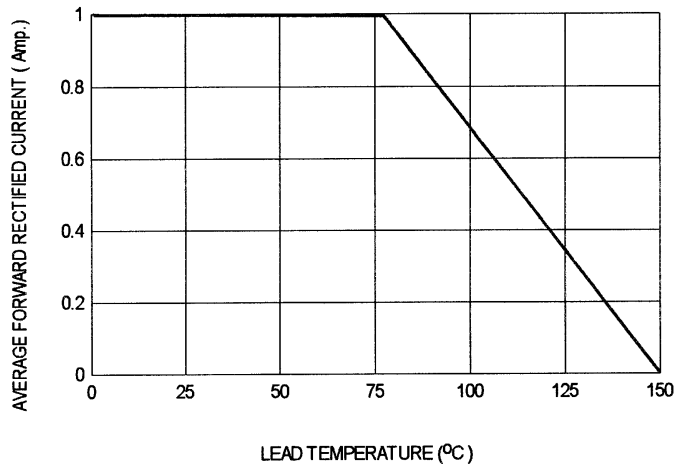


FIG-2 TYPICAL FORWARD CHARACTERISTICS

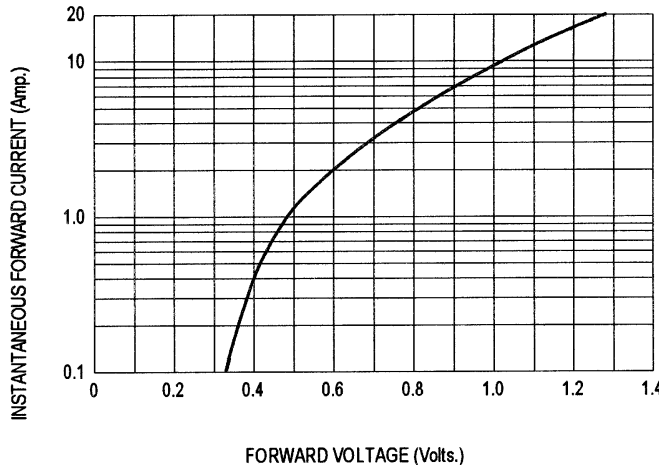


FIG-3 TYPICAL REVERSE CHARACTERISTICS

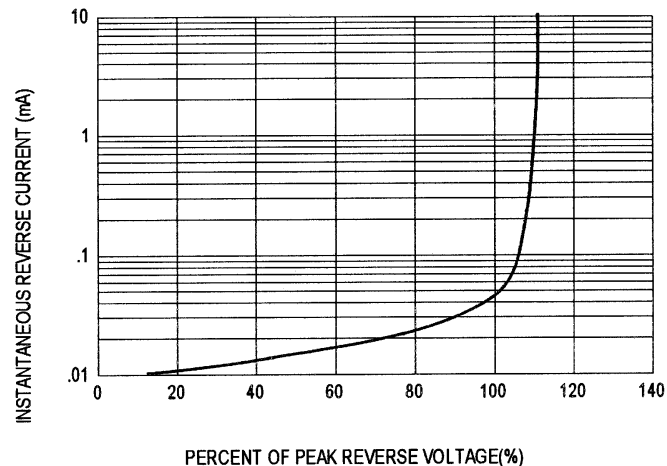


FIG-4 TYPICAL JUNCTION CAPACITANCE

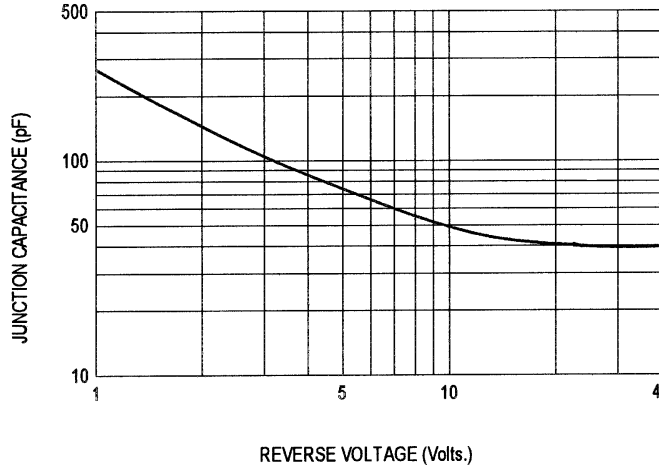
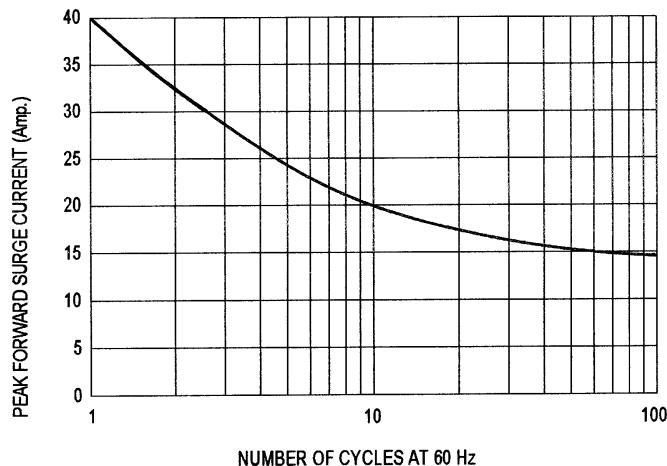


FIG-5 PEAK FORWARD SURGE CURRENT



# SR105 , SR106

FIG-1 FORWARD CURRENT DERATING CURVE

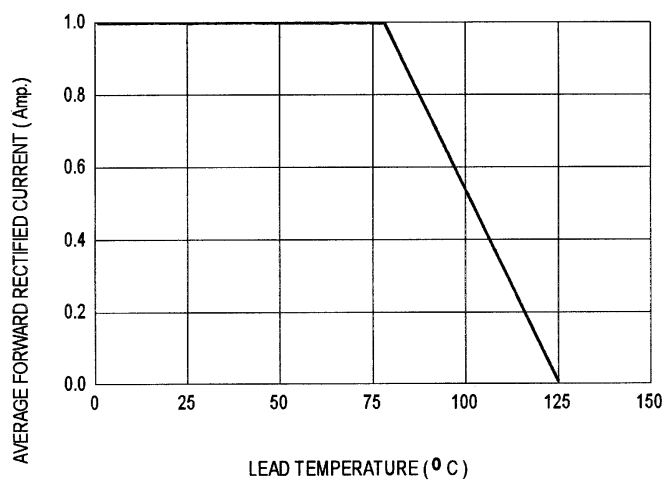


FIG-2 TYPICAL FORWARD CHARACTERISTICS

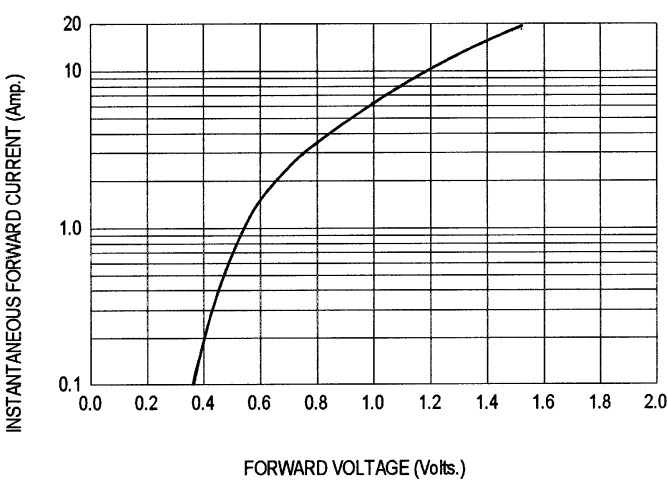


FIG-3 TYPICAL REVERSE CHARACTERISTICS

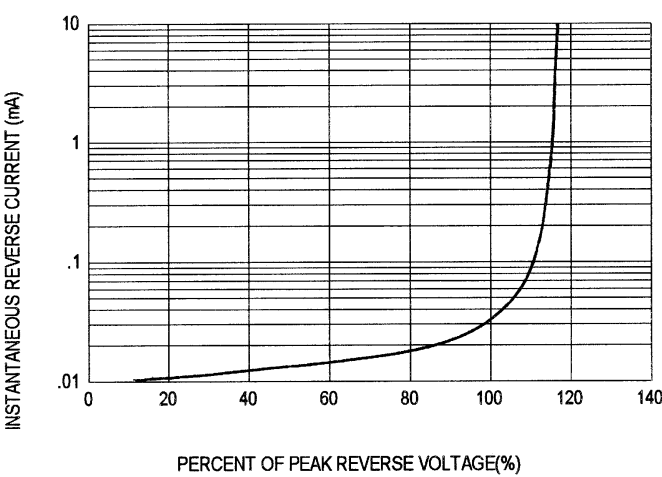


FIG-4 TYPICAL JUNCTION CAPACITANCE

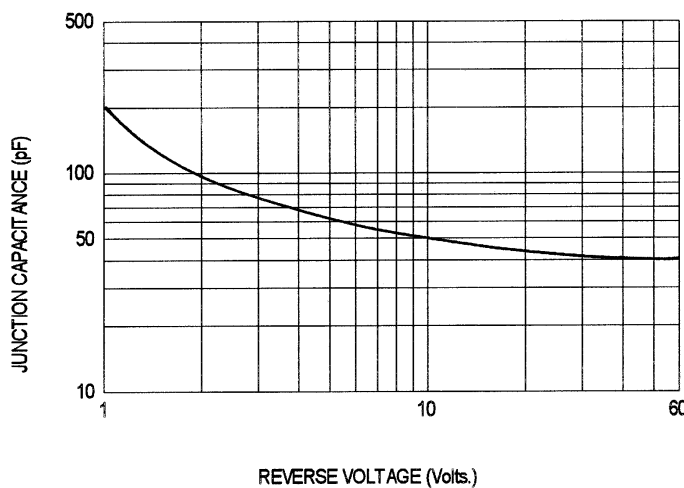


FIG-5 PEAK FORWARD SURGE CURRENT

