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.

SCHOTTKY BARRIER RECTIFIERS

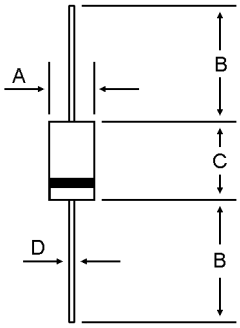
3.0 AMPERES
70-100 VOLTS

DO-201AD

Features

- ∗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

∗*In compliance with EU RoHs 2002/95/EC directives*
The marking is indicated by part no. with. “M”. ex:SR307M~SR3100M



MAXIMUM RATINGS

Characteristic	Symbol	SR				Unit
		307	308	309	3100	
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	$VR_{(RMS)}$	49	56	63	70	V
Average Rectifier Forward Current	I_O	3				A
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions half-wave, single phase,60Hz)	I_{FSM}	75				A
Operating and Storage Junction Temperature Range	T_J , T_{STG}	-65 to +150				℃

DIM	MILLIMETERS	
	MIN	MAX
A	5.00	5.60
B	25.40	---
C	7.20	9.50
D	1.20	1.30

ELECTRIAL CHARACTERISTICS

Characteristic	Symbol	SR				Unit
		307	308	309	3100	
Maximum Instantaneous Forward Voltage (I_F =3.0 Amp)	V_F	0.75		0.85		V
Maximum Instantaneous Reverse Current (Rated DC Voltage, T_C = 25℃) (Rated DC Voltage, T_C = 125℃)	I_R	0.01 10				mA
Maximum Thermal Resistance Junction to Case	$R_{\theta JC}$	40				°C/W
Typical Junction Capacitance (Reverse Voltage of 4 volts & f=1 MHz)	C_P	180		150		pF

CASE---
Transfer molded plastic

POLARITY---
Cathode indicated polarity band

SR307 thru SR3100

FIG-1 FORWARD CURRENT DERATING CURVE

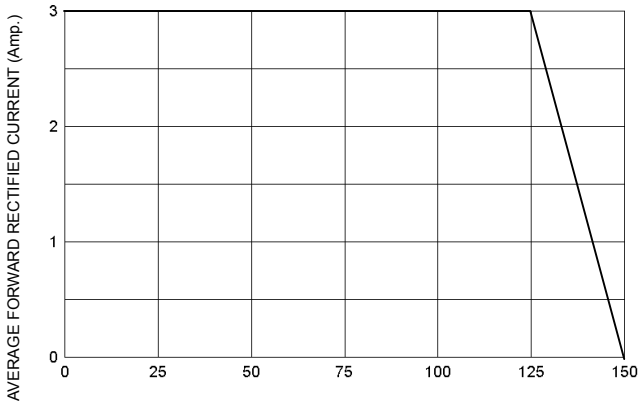


FIG-2 TYPICAL FORWARD CHARACTERISITICS

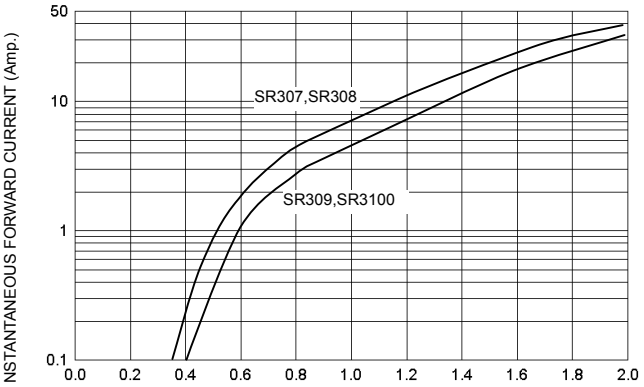


FIG-3 TYPICAL REVERSE CHARACTERISTICS

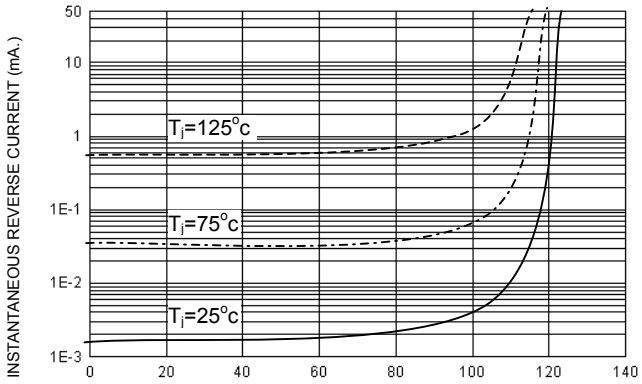


FIG-4 TYPICAL JUNCTION CAPACITANCE

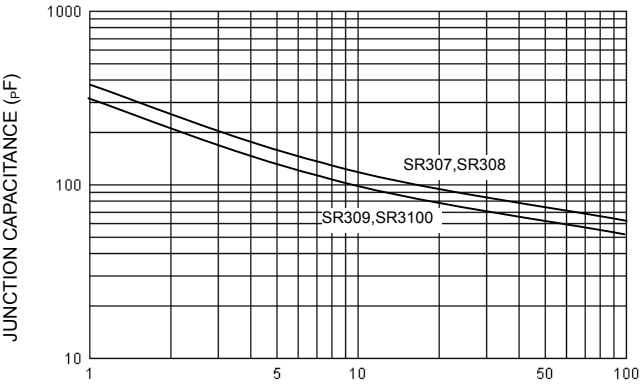


FIG-5 PEAK FORWARD SURGE CURRENT