

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-0



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

MAXIMUM RATINGS

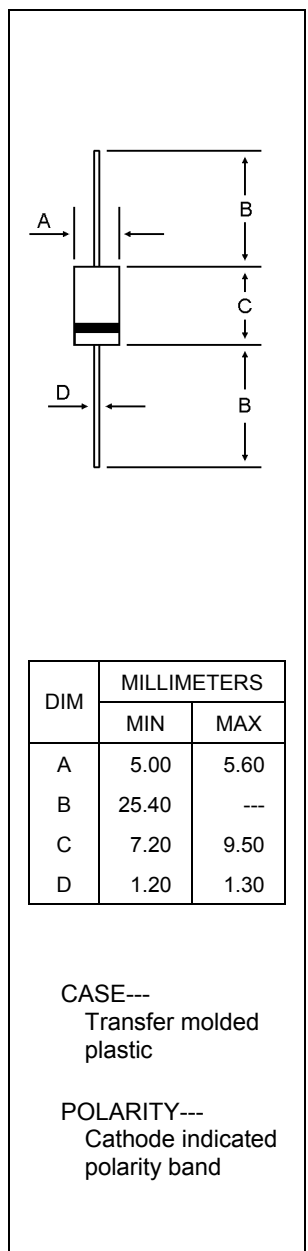
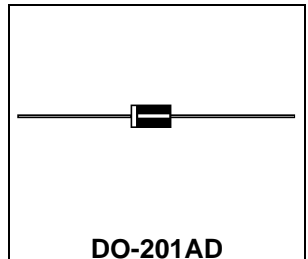
Characteristic	Symbol	SR				Unit
		307	308	309	3100	
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	70	80	90	100	V
RMS Reverse Voltage	$V_{R(RMS)}$	49	56	63	70	V
Average Rectifier Forward Current	I_O	3				A
Non-Repetitive Peak Surge Current (Surge 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				°C

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, $T_C = 25^\circ\text{C}$) (Rated DC Voltage, $T_C = 125^\circ\text{C}$)	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

SCHOTTKY BARRIER RECTIFIERS

**3.0 AMPERES
70-100 VOLTS**



SR307 thru SR3100

FIG-1 FORWARD CURRENT DERATING CURVE

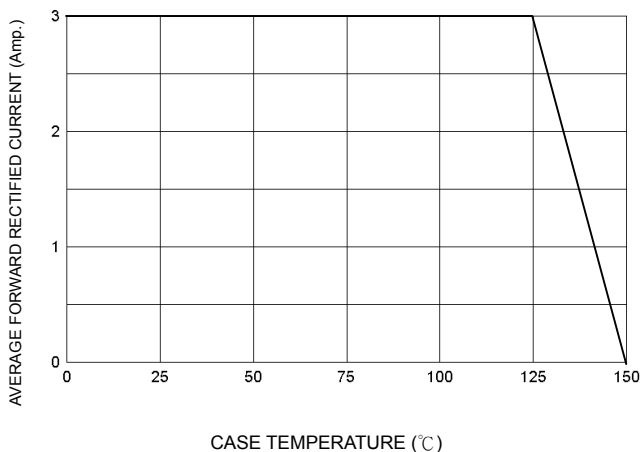


FIG-2 TYPICAL FORWARD CHARACTERISTICS

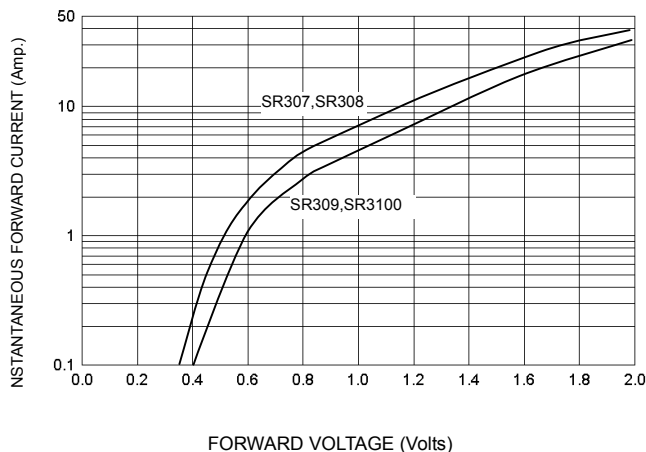


FIG-3 TYPICAL REVERSE CHARACTERISTICS

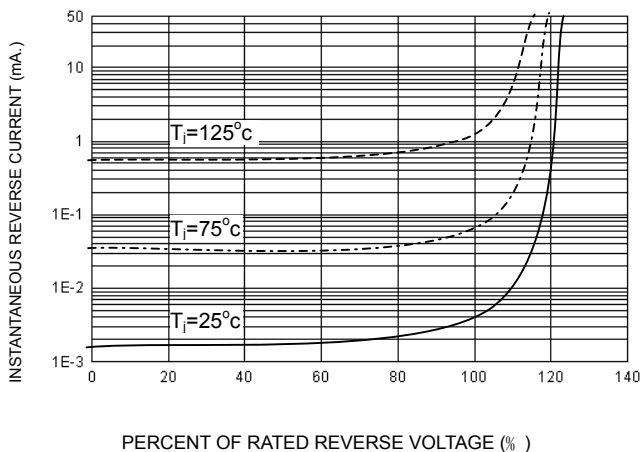


FIG-4 TYPICAL JUNCTION CAPACITANCE

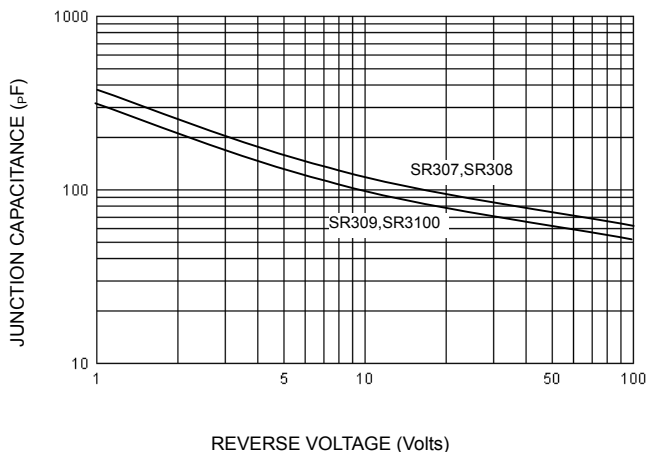


FIG-5 PEAK FORWARD SURGE CURRENT

