



SR307 Thru SR3100

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

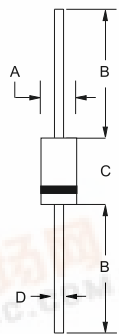
**3.0 AMPERES
70 -100 VOLTS**



DO-201AD

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 halfwave, single phase, 60Hz)	I_{FSM}	75				A
Operating and Storage Junction Temperature Range	T_J, T_{stg}	- 65 to + 125				°C



DIM	MILLIMETERS	
	MIN	MAX
A	5.00	5.60
B	25.40	—
C	8.50	9.50
D	1.20	1.30

ELECTRICAL 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, $T_c = 25\text{ }^{\circ}\text{C}$) (Rated DC Voltage, $T_c = 100\text{ }^{\circ}\text{C}$)	I_R	3.0 50				mA
Typical Junction Capacitance (Reverse Voltage of 4 volts & $f=1\text{ MHz}$)	C_P	180		150		pF

CASE---

Transfer molded
plastic

POLARITY---

Cathode indicated
polarity band

SR307 , SR308

FIG-1 FORWARD CURRENT DERATING CURVE

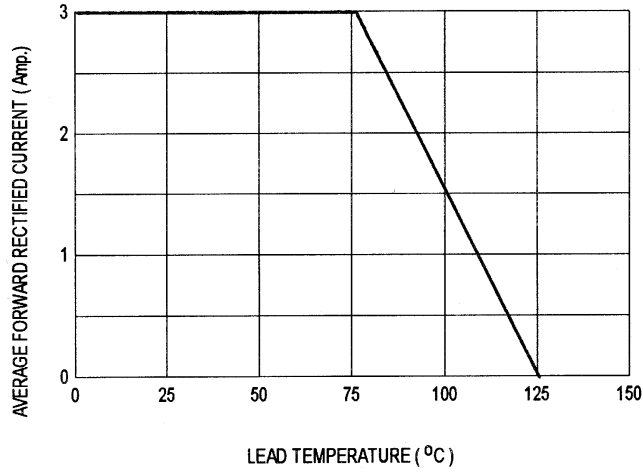


FIG-2 TYPICAL FORWARD CHARACTERISTICS

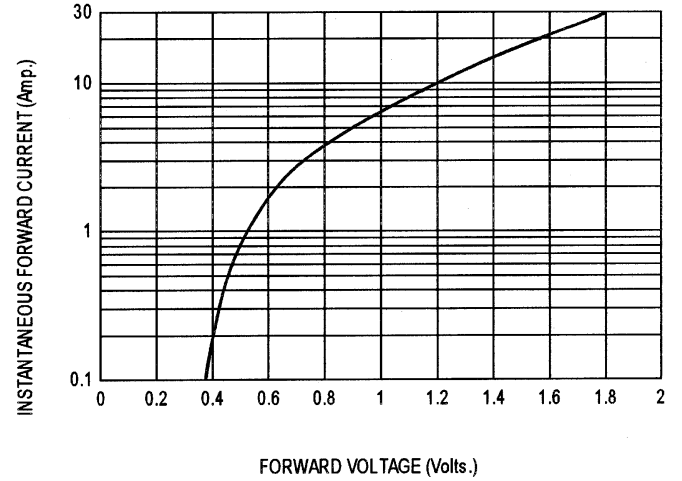


FIG-3 TYPICAL REVERSE CHARACTERISTICS

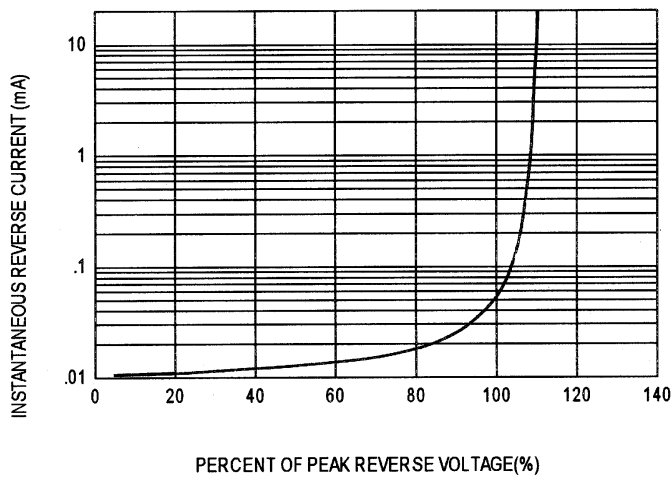


FIG-4 TYPICAL JUNCTION CAPACITANCE

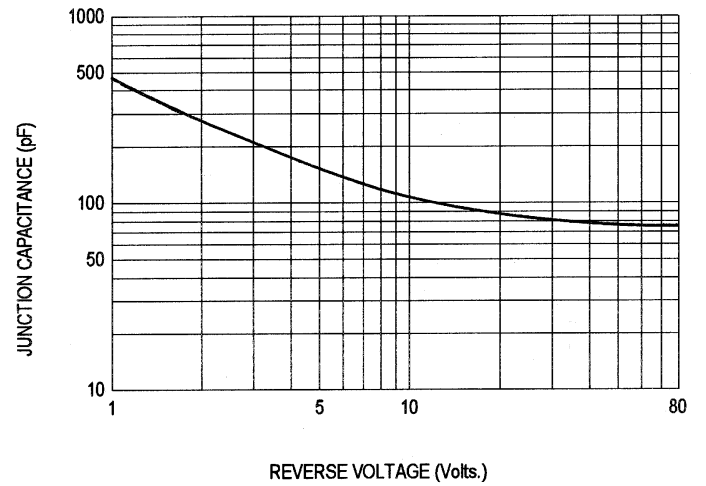
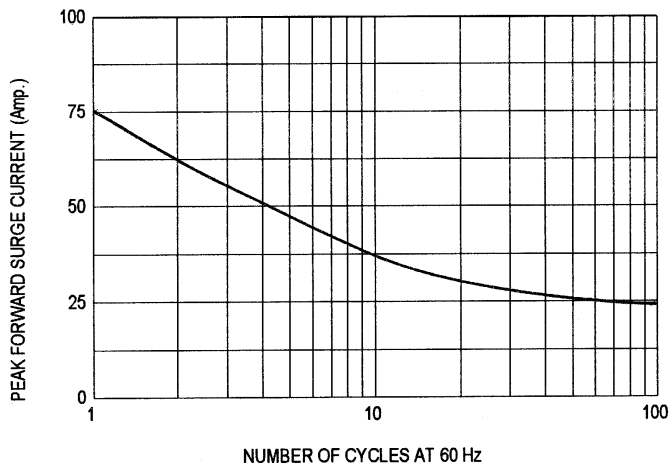


FIG-5 PEAK FORWARD SURGE CURRENT



SR309 , SR3100

FIG-1 FORWARD CURRENT DERATING CURVE

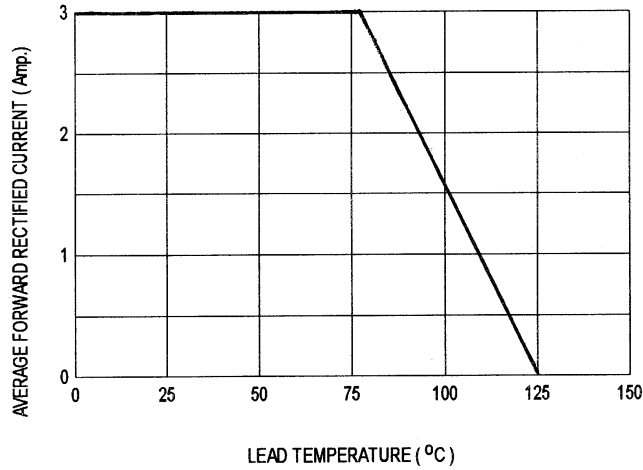


FIG-2 TYPICAL FORWARD CHARACTERISTICS

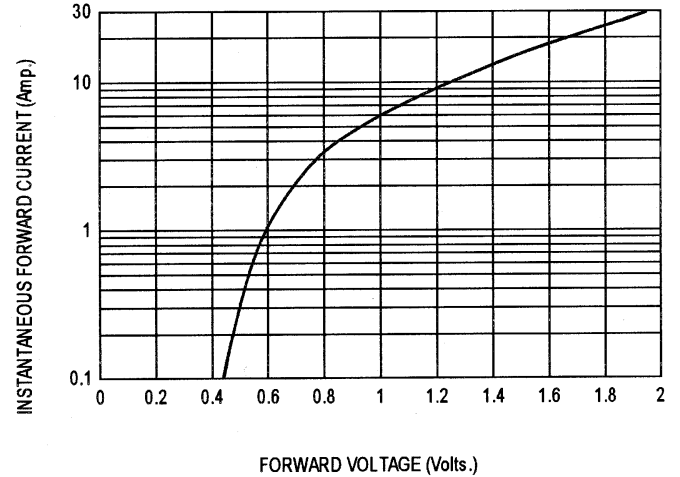


FIG-3 TYPICAL REVERSE CHARACTERISTICS

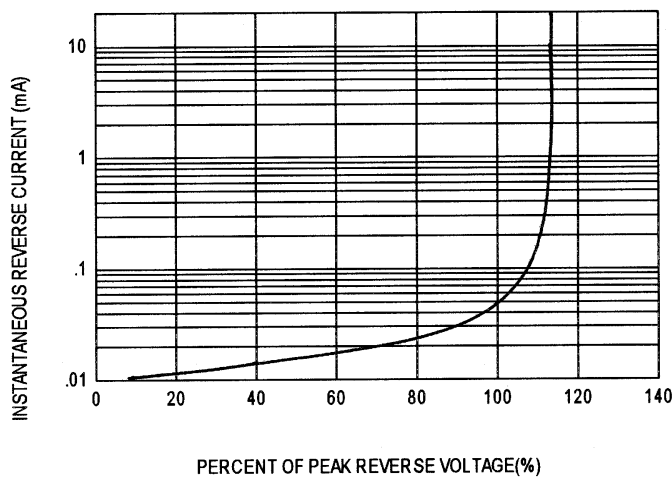


FIG-4 TYPICAL JUNCTION CAPACITANCE

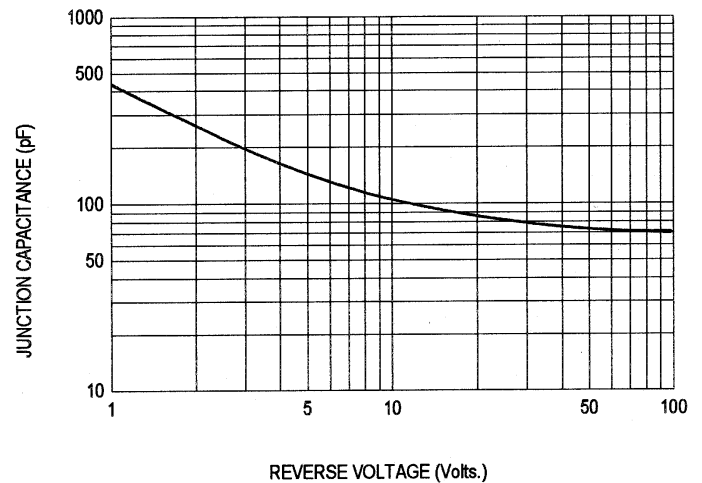


FIG-5 PEAK FORWARD SURGE CURRENT

