MOSPEC

SR307 Thru SR3100

Schottky Barrier Rectifiers

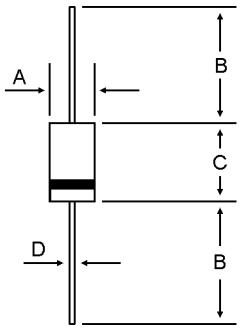
--- Using the Schottky Barrier principle with a Molybdenum barrier metal. These state-of-the-art geometry features epitaxial construction with oxide passivation and metal overlay contact. Ideally suited for low voltage, high frequency rectification, or as free wheeling and polarity protection diodes.

- ✳Low Forward Voltage.
- ✳Low Switching noise.
- ✳High Current Capacity
- ✳Guarantee Reverse Avalanche.
- ✳Guard-Ring for Stress Protection.
- ✳Low Power Loss & High efficiency.
- ✳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*

SCHOTTKY BARRIER RECTIFIERS

3.0 AMPERES
70-100 VOLTS

DO-201AD



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

CASE---
Transfer molded plastic

POLARITY---
Cathode indicated polarity band

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				℃

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	0.5 20				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

SR307 thru SR3100

FIG-1 FORWARD CURRENT DERATING CURVE

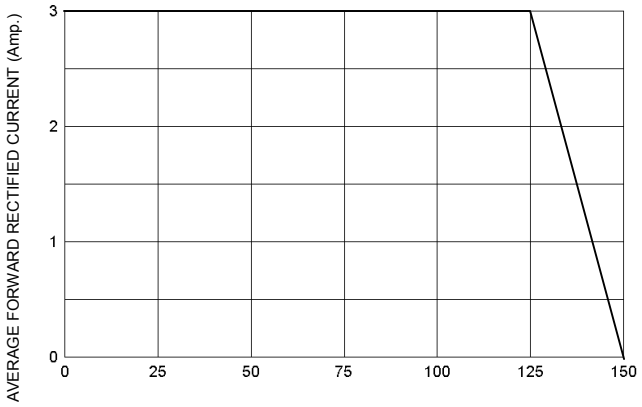


FIG-2 TYPICAL FORWARD CHARACTERISITICS

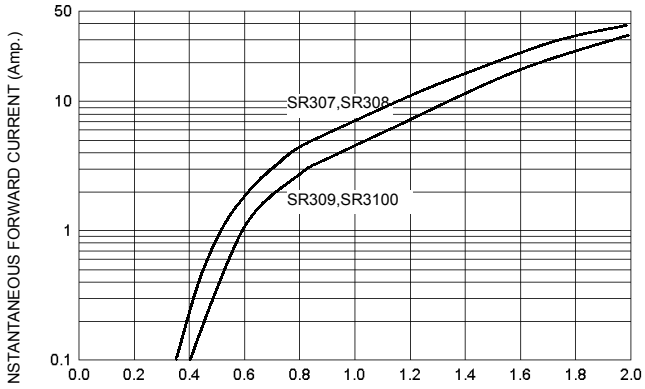


FIG-3 TYPICAL REVERSE CHARACTERISTICS

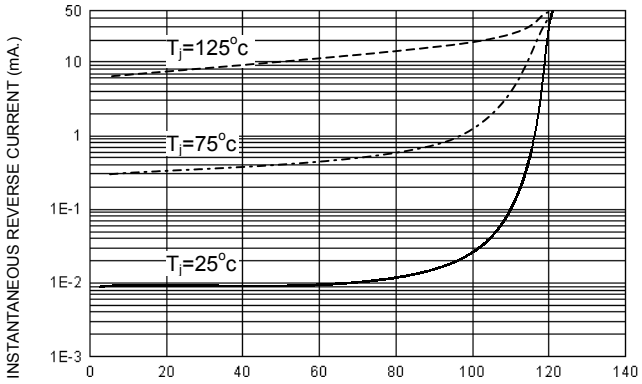


FIG-4 TYPICAL JUNCTION CAPACITANCE

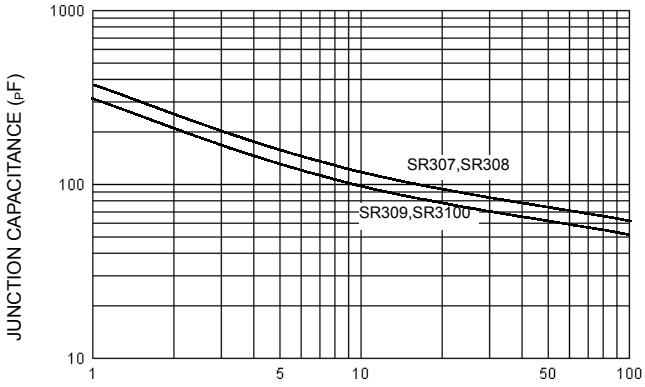


FIG-5 PEAK FORWARD SURGE CURRENT