MOSPEC

SR507 Thru SR5100

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.

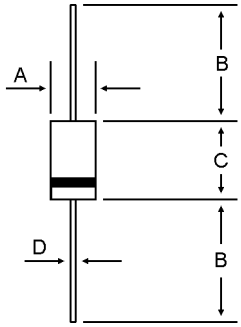
- ＊Low Forward Voltage.
- ＊Low Switching noise.
- ＊High Current Capacity
- ＊Guarantee Reverse Avalanche.
- ＊Guard-Ring for Stress Protection.
- ＊Low Power Loss & High efficiency.
- ＊125℃ Operating Junction Temperature
- ＊Low Stored Charge Majority Carrier Conduction.
- ＊Plastic Material used Carries Underwriters Laboratory Flammability Classification 94V-O

Plating pb free
The marking is indicated by part no. with.“M”.
ex:SR507M~SR5100M

SCHOTTKY BARRIER RECTIFIERS

5.0 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
		507	508	509	5100	
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	5				A
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions halfware, single phase,60Hz)	I_{FSM}	125				A
Operating and Storage Junction Temperature Range	T_J , T_{STG}	-65 to +125				℃

ELECTRIAL CHARACTERISTICS

Characteristic	Symbol	SR				Unit
		507	508	509	5100	
Maximum Instantaneous Forward Voltage (I_F =5.0 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
Typical Junction Capacitance (Reverse Voltage of 4 volts & f=1 MHz)	C_P	300		275		pF
Typical Thermal Resistance(Note 1)	$R_{\theta JA}$	40				°C/W

Note:
1. Thermal Resistance from Junction to Ambient temperature at .375”(9.5mm) lead length, P.C. board mounted.

SR507 thru SR5100

FIG-1 FORWARD CURRENT DERATING CURVE

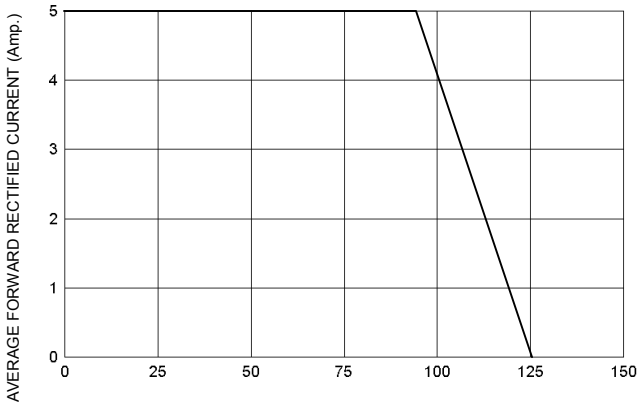


FIG-2 TYPICAL FORWARD CHARACTERISITICS

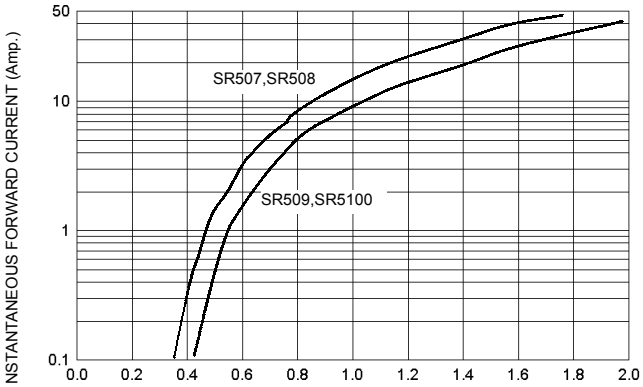


FIG-3 TYPICAL REVERSE CHARACTERISTICS

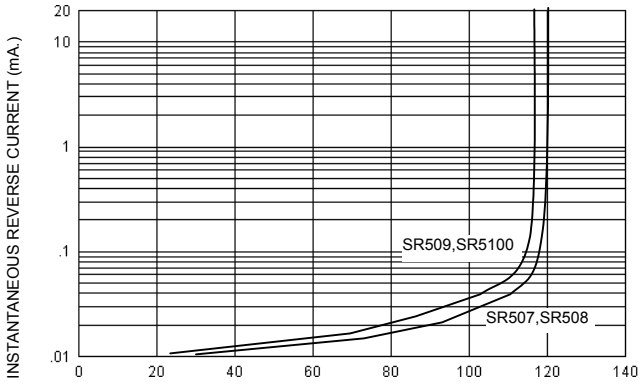


FIG-4 TYPICAL JUNCTION CAPACITANCE

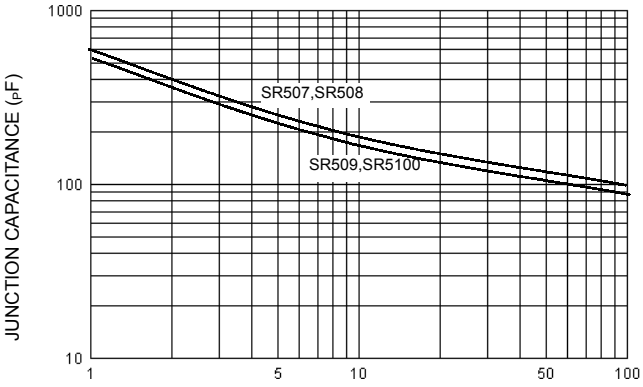


FIG-5 PEAK FORWARD SURGE CURRENT