

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 Operating Junction Temperature
- * Low Stored Charge Majority Carrier Conduction.
- * Plastic Material used Carries Underwriters Laboratory Flammability Classification 94V-O
- * Moisture Sensitivity Level: MSL-1



- * ESD: 5KV(Min.) Human-Body Model
- * In compliance with EU RoHs 2002/95/EC directives

MAXIMUM RATINGS

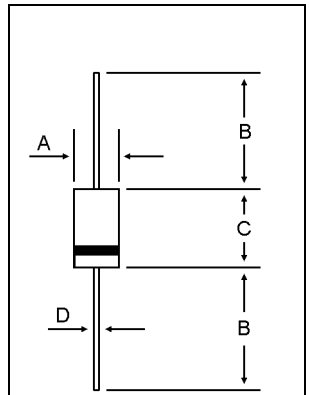
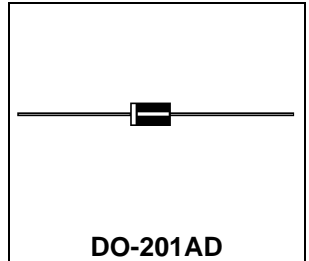
Characteristic	Symbol	SR					Unit
		502	503	504	505	506	
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	20	30	40	50	60	V
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	35	42	V
Average Rectifier Forward Current	I_O	5.0					A
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions half-wave, single phase,60Hz)	I_{FSM}	150					A
Operating and Storage Junction Temperature Range	T_J, T_{STG}	-65 to +150					

ELECTRIAL CHARACTERISTICS

Characteristic	Symbol	SR					Unit
		502	503	504	505	506	
Maximum Instantaneous Forward Voltage ($I_F = 5.0$ Amp)	V_F	0.550			0.700		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 from Junction to ambient	$R_{\theta JA}$	30					$^{\circ}C/W$
Typical Junction Capacitance (Reverse Voltage of 4 volts & $f=1$ MHz)	C_P	340			320		pF

SCHOTTKY BARRIER RECTIFIERS

5.0 AMPERES
20-60 VOLTS



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

SR502 Thru SR506

FIG-1 FORWARD CURRENT DERATING CURVE

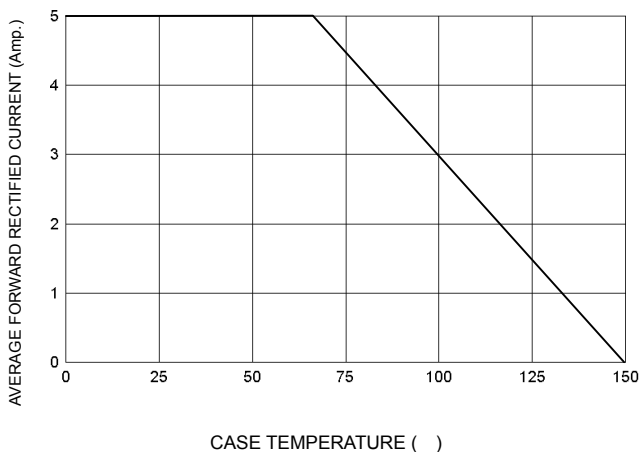


FIG-2 TYPICAL FORWARD CHARACTERISTICS

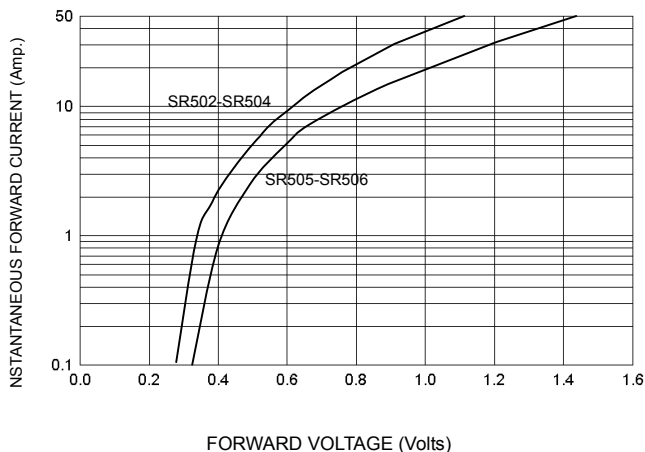


FIG-3 TYPICAL REVERSE CHARACTERISTICS

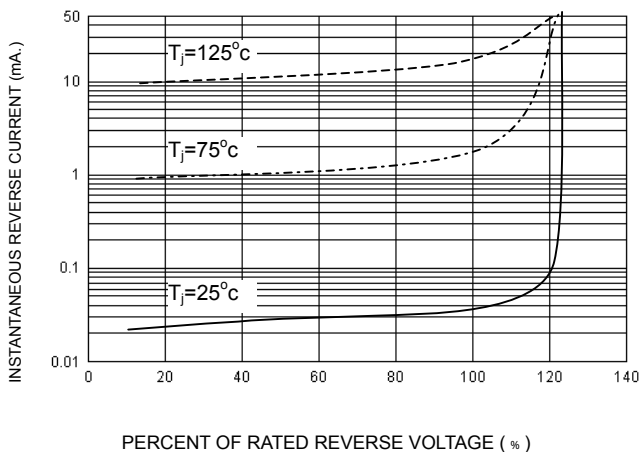


FIG-4 TYPICAL JUNCTION CAPACITANCE

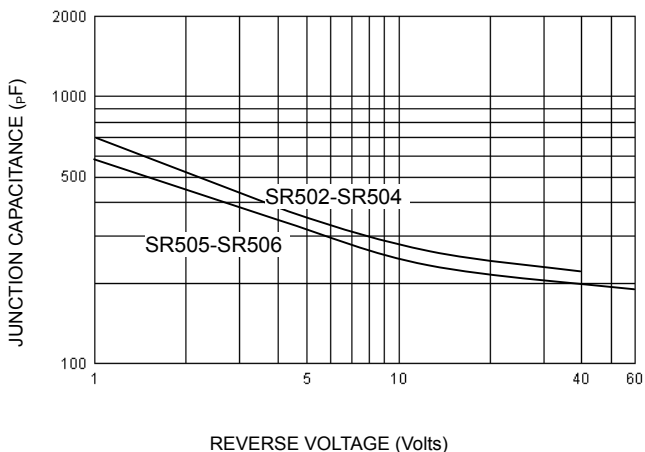


FIG-5 PEAK FORWARD SURGE CURRENT

