

Surface Mount Schottky Barrier rectifiers

Using the Schottky Barrier principle with a Molybdenum barrier meta. 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, in surface mount applications where compact size and weight are critical to the system.

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-0
- * Moisture Sensitivity Level: MSL-1
- * *In compliance with EU RoHs 2002/95/EC directives*

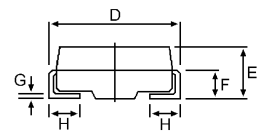
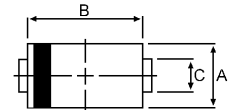


SCHOTTKY BARRIER RECTIFIERS

**5.0 AMPERES
20-60 VOLTS**



DO-214AA(SMB)



DIM	MILLIMETERS	
	MIN	MAX
A	3.30	3.90
B	4.20	4.60
C	1.80	2.20
D	5.10	5.60
E	1.90	2.50
F		1.30
G		0.22
H	0.95	1.35

MAXIMUM RATINGS

Characteristic	Symbol	SR52	SR53	SR54	SR55	SR56	Unit
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 halfwave, single phase, 60Hz)	I_{FSM}	100					A
Operating and Storage Junction Temperature Range	T_J, T_{STG}	-65 to +150					

ELECTRIAL CHARACTERISTICS

Characteristic	Symbol	SR					Unit
		52	53	54	55	56	
Maximum Instantaneous Forward Voltage ($I_F = 5.0$ Amp)	V_F	0.550			0.700		V
Maximum Instantaneous Reverse Current (Rated DC Voltage, $T_C = 25^\circ$) (Rated DC Voltage, $T_C = 125^\circ$)	I_R	0.5			20		mA
Maximum Thermal Resistance Junction to Case	$R_{\theta JC}$	30					$^\circ C/W$
Typical Junction Capacitance (Reverse Voltage of 4 volts & $f=1$ MHz)	C_P	340			320		pF

CASE---
Transfer molded plastic

POLARITY---
Cathode indicated polarity band

SR52 Thru SR56

FIG-1 FORWARD CURRENT DERATING CURVE

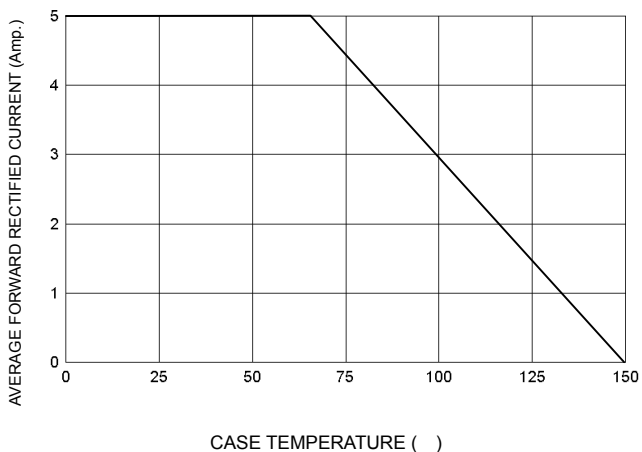


FIG-2 TYPICAL FORWARD CHARACTERISTICS

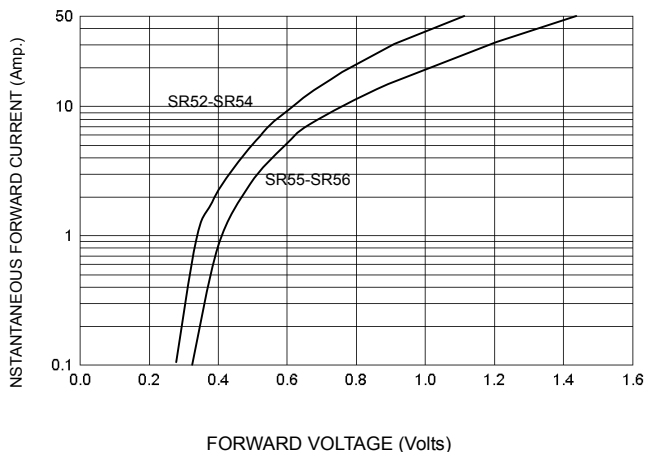


FIG-3 TYPICAL REVERSE CHARACTERISTICS

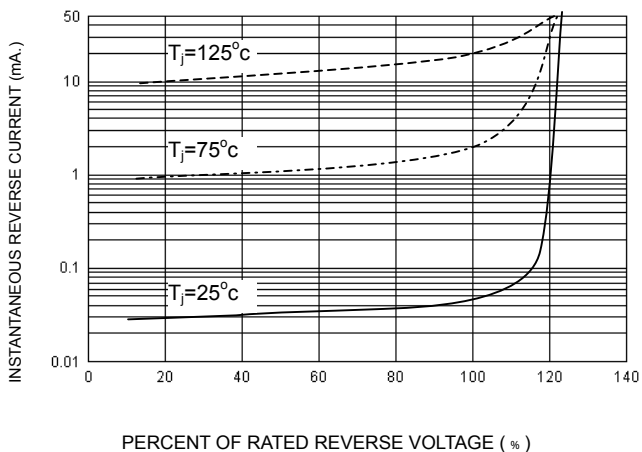


FIG-4 TYPICAL JUNCTION CAPACITANCE

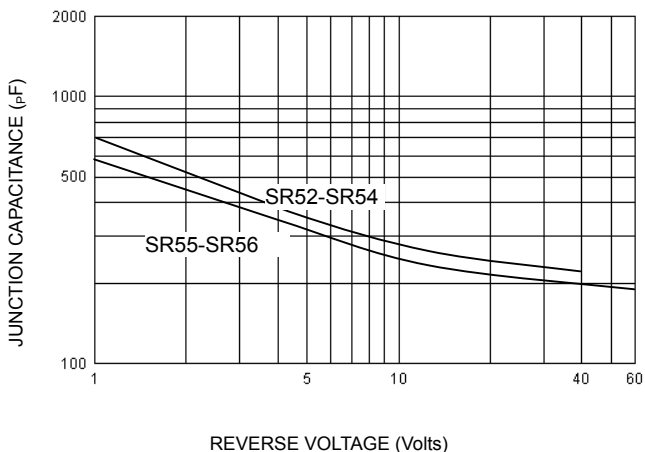
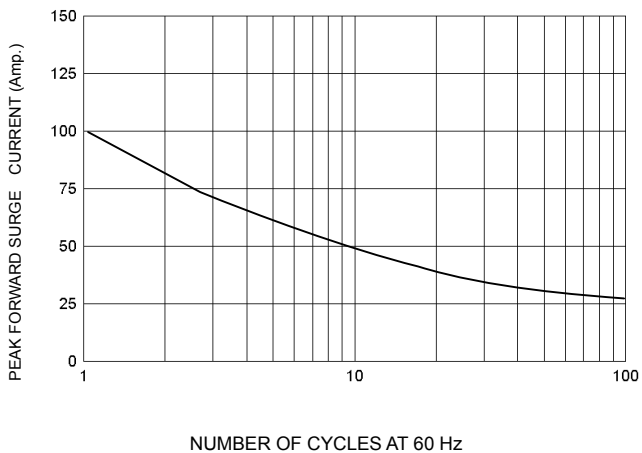


FIG-5 PEAK FORWARD SURGE CURRENT



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