

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.

- * Low Forward Voltage.
- * Low Switching noise.
- * High Current Capacity
- * Guarantee Reverse Avalanche.
- * Guard-Ring for Stress Protection.
- * Low Power Loss & High efficiency.
- * 150°C Operating Junction Temperature
- * Low Stored Charge Majority Carrier Conduction.
- * Plastic Material used Carries Underwriters Laboratory Flammability Classification 94V-O

Mechanical Data

- * Case:Molded Plastic
- * Terminals:Plated lead,solderable per MIL-STD-750, Method 2026
- * Polarity:Indicated by Cathode band
- * Weight:0.002 ounce,0.064 gram



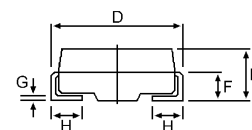
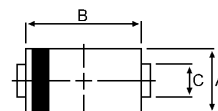
Plating pb free is indicated by box

SCHOTTKY BARRIER RECTIFIERS

**3 AMPERES
100 VOLTS**



DO-214AA(SMB)



MAXIMUM RATINGS

Characteristic	Symbol	SRT310	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	100	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
RMS Reverse Voltage	$V_{R(RMS)}$	70	V
Average Rectifier Forward Current	I_O	3.0	A
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions halfwave, single phase, 60Hz)	I_{FSM}	30	A
Operating and Storage Junction Temperature Range	T_J, T_{STG}	-65 to +150	°C

ELECTRICAL CHARACTERISTICS

Characteristic	Symbol	SRT310			Unit
Maximum Instantaneous Forward Voltage ($I_F = 0.1$ Amp) ($I_F = 3.0$ Amp)	V_F	Min ---	Typ. 0.34 0.56	Max 0.36 0.58	V
Maximum Instantaneous Reverse Current (Rated DC Voltage, $T_C = 25^\circ\text{C}$) (Rated DC Voltage, $T_C = 125^\circ\text{C}$)	I_R	---	0.03 12	0.05 15	mA
Maximum Thermal Resistance Junction to Lead (Note.1)	R_{thjL}	20.0			°C/W
Typical Junction Capacitance (Reverse Voltage of 4 volts & $f = 1$ MHz)	C_P	100			pF

Note:

1. Mounted 1 inch square PCB

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

CASE---
Transfer molded
plastic

POLARITY---
Cathode indicated
polarity band

FIG-1 FORWARD CURRENT DERATING CURVE

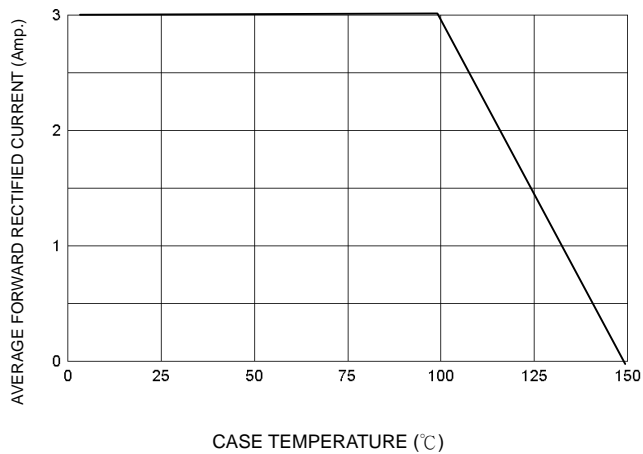


FIG-2 TYPICAL FORWARD CHARACTERISTICS

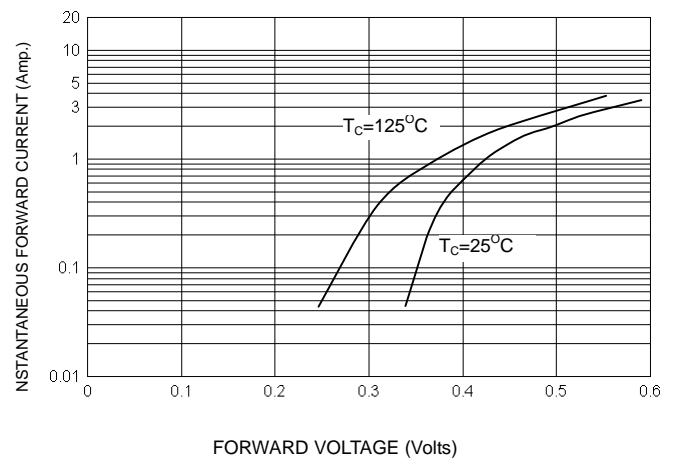


FIG-3 TYPICAL REVERSE CHARACTERISTICS

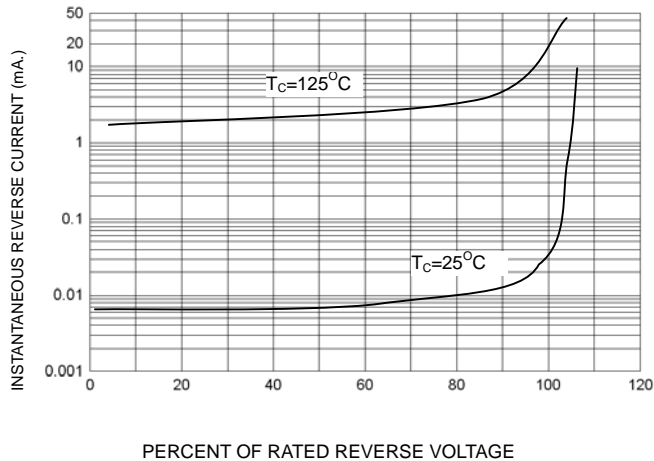


FIG-4 TYPICAL JUNCTION CAPACITANCE

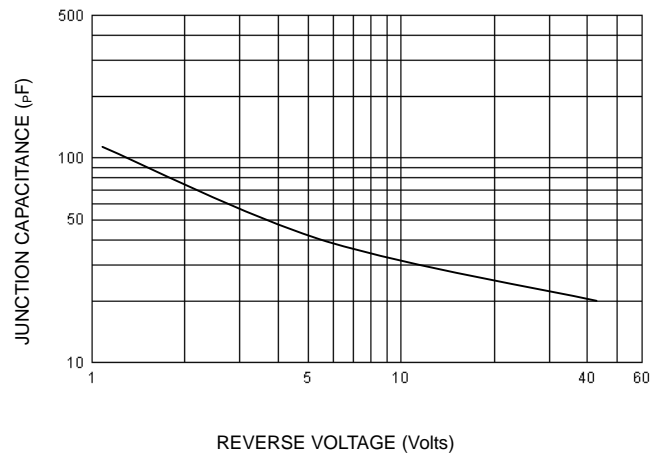
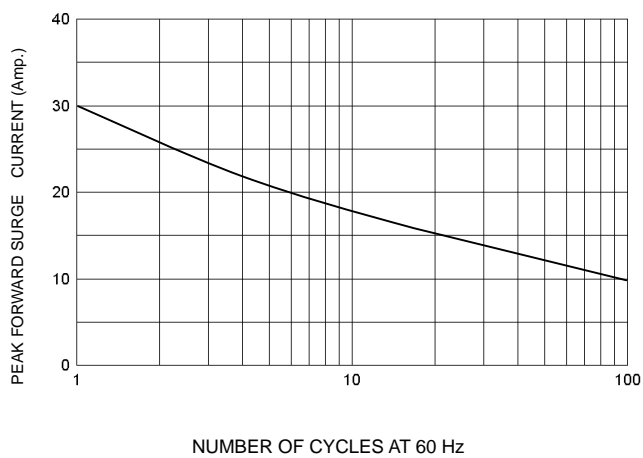


FIG-5 PEAK FORWARD SURGE CURRENT



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