

Schottky Barrier Power 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

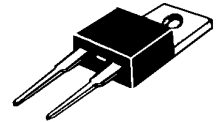
- * Low Forward Voltage.
- * Low Switching noise.
- * High Current Capacity
- * Guarantee Reverse Avalanche.
- * Guard-Ring for Stress Protection.
- * Low Power Loss & High efficiency.
- * 150 Operating Junction Temperature
- * Low Stored Charge Majority Carrier Conduction.
- * Plastic Material used Carries Underwriters Laboratory
- * ESD: 4KV(Min.) Human-Body Model



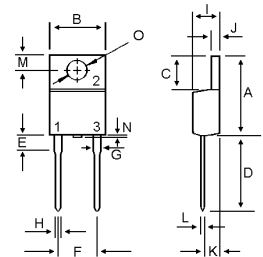
* In compliance with EU RoHs 2002/95/EC directives

SCHOTTKY BARRIER RECTIFIERS

**10 AMPERES
70-100 VOLTS**



TO-220A



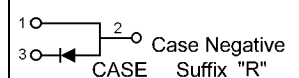
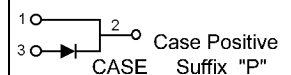
MAXIMUM RATINGS

Characteristic	Symbol	S10A70	S10A80	S10A90	S10A100	Unit
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	$V_{R(RMS)}$	49	56	63	70	V
Average Rectifier Forward Current	$I_{F(AV)}$	10				A
Peak Repetitive Forward Current (Rate V_R , Square Wave, 20kHz)	I_{FM}	10				A
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions halfwave, single phase, 60Hz)	I_{FSM}	200				A
Operating and Storage Junction Temperature Range	T_J, T_{STG}	-65 to +150				

ELECTRIAL CHARACTERISTICS

Characteristic	Symbol	S10A70	S10A80	S10A90	S10A100	Unit
Maximum Instantaneous Forward Voltage ($I_F = 10$ Amp $T_C = 25^\circ$) ($I_F = 10$ Amp $T_C = 125^\circ$)	V_F	0.75 0.68		0.85 0.76		V
Typical Thermal Resistance junction to case	$R_{\theta j-c}$	3.4				/w
Maximum Instantaneous Reverse Current (Rated DC Voltage, $T_C = 25^\circ$) (Rated DC Voltage, $T_C = 125^\circ$)	I_R	0.2 20				mA

DIM	MILLIMETERS	
	MIN	MAX
A	14.68	15.32
B	9.78	10.42
C	6.02	6.52
D	13.06	14.62
E	3.57	4.07
F	4.84	5.32
G	1.12	1.36
H	0.72	0.96
I	4.22	4.98
J	1.14	1.38
K	2.20	2.98
L	0.33	0.55
M	2.48	2.98
N	----	1.00
O	3.70	3.90



S10A70 Thru S10A100

FIG-1 FORWARD CURRENT DERATING CURVE

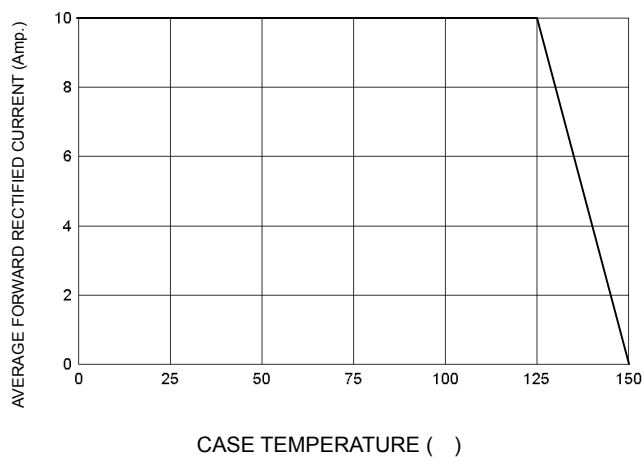


FIG-2 TYPICAL FORWARD CHARACTERISITICS

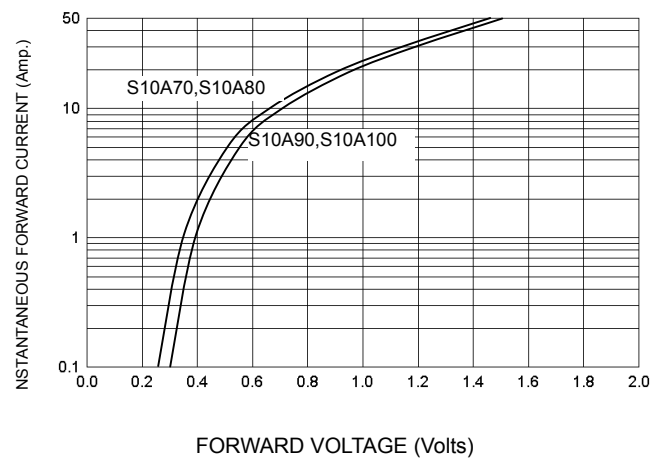


FIG-3 TYPICAL REVERSE CHARACTERISTICS

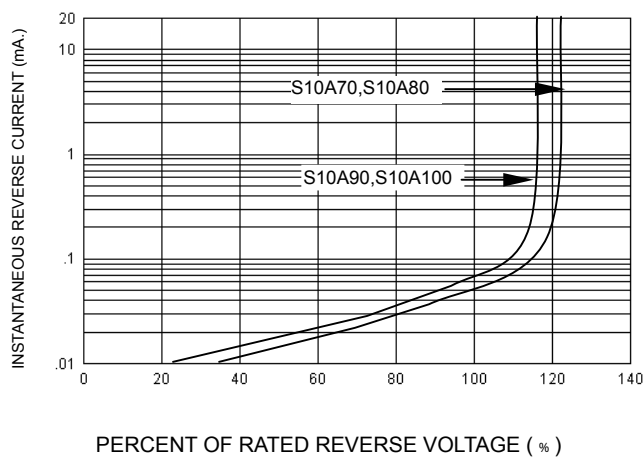


FIG-4 TYPICAL JUNCTION CAPACITANCE

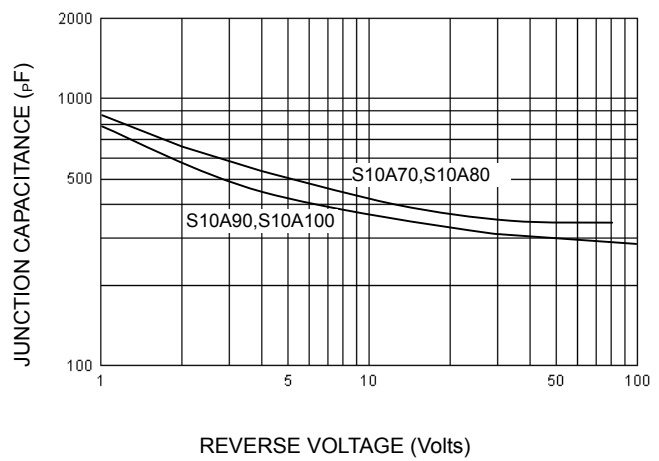
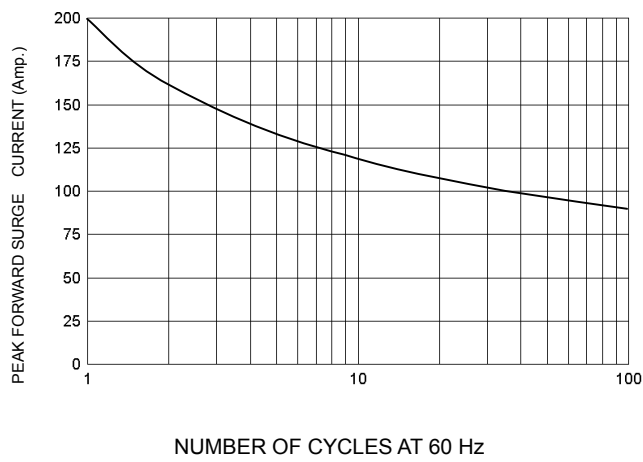


FIG-5 PEAK FORWARD SURGE CURRENT



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