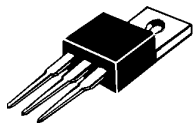
Schottky Barrier Rectifiers

--- 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.

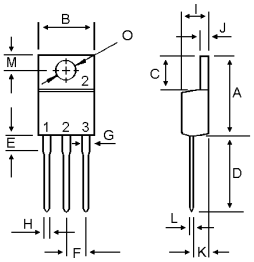
- ✳Low Forward Voltage.
- ✳Low Switching noise.
- ✳High Current Capacity
- ✳Guarantee Reverse Avalanche.
- ✳Guard-Ring for Stress Protection.
- ✳Low Power Loss & High efficiency.
- ✳150℃ Operating Junction Temperature
- ✳Low Stored Charge Majority Carrier Conduction.
- ✳Plastic Material used Carries Underwriters Laboratory Flammability Classification 94V-O
- ✳ESD: 4KV(Min.) Human-Body Model
- ✳*In compliance with EU RoHs 2002/95/EC directives*

SCHOTTKY BARRIER RECTIFIERS

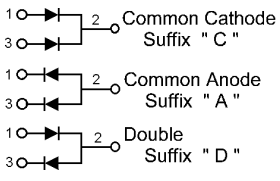
10 AMPERES
70-100 VOLTS



TO-220AB



DIM	MILLIMETERS	
	MIN	MAX
A	14.68	15.32
B	9.78	10.42
C	5.02	6.52
D	13.06	14.62
E	3.57	4.07
F	2.42	2.66
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
O	3.70	3.90



MAXIMUM RATINGS

Characteristic	Symbol	S10C				Unit
		70	80	90	100	
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 Total Device (Rated V_R), T_C=125℃	I_O	5 10				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 +150				℃

ELECTRIAL CHARACTERISTICS

Characteristic	Symbol	S10C				Unit
		70	80	90	100	
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
Maximum Thermal Resistance Junction to Case	$R_{\theta Jc}$	4.2				°C/W
Typical Junction Capacitance (Reverse Voltage of 4 volts & f=1 MHz)	C_P	300		275		pF

S10C70 thru S10C100

FIG-1 FORWARD CURRENT DERATING CURVE

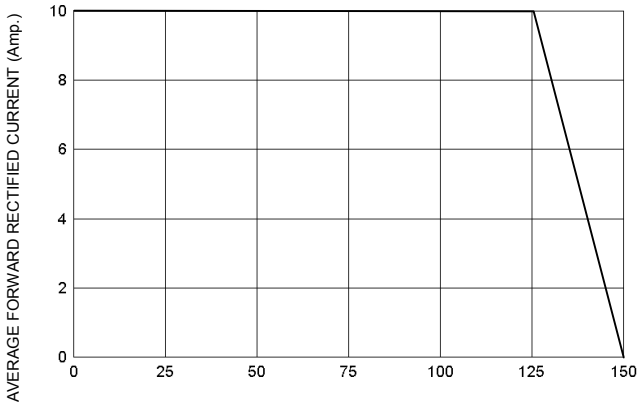


FIG-2 TYPICAL FORWARD CHARACTERISITICS

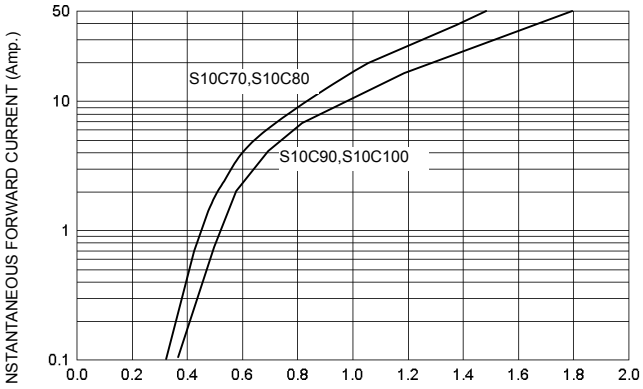


FIG-3 TYPICAL REVERSE CHARACTERISTICS

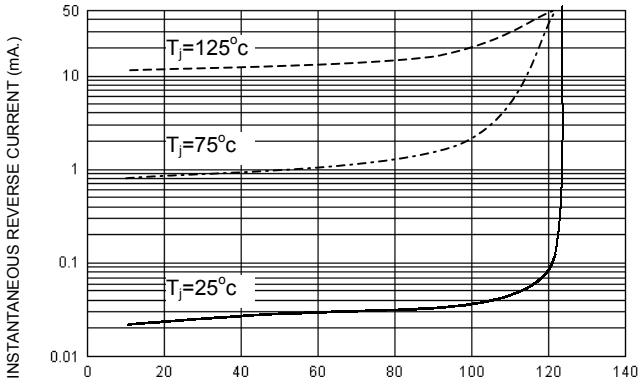


FIG-4 TYPICAL JUNCTION CAPACITANCE

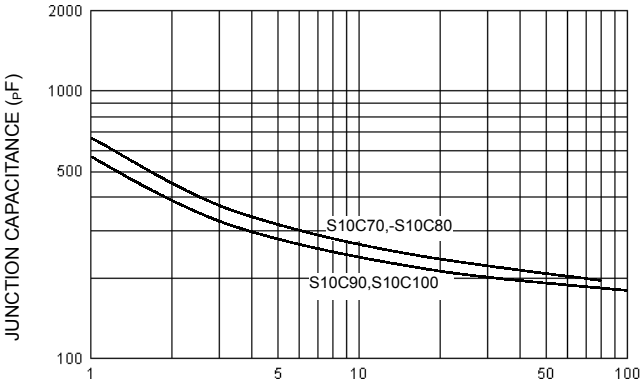
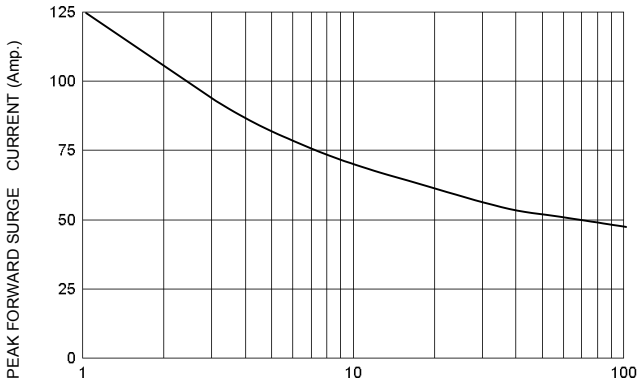


FIG-5 PEAK FORWARD SURGE CURRENT



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