

## Switchmode Full Plastic Dual Schottky Barrier Power Rectifiers

Using the Schottky Barrier principle with a Refractory 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.

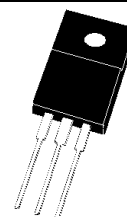
### Features

- \* Low Forward Voltage.
- \* Low Switching noise.
- \* High Current Capacity
- \* Guarantee Reverse Avalanche.
- \* Guard-Ring for Stress Protection.
- \* Low Power Loss & High efficiency.
- \* Low Stored Charge Majority Carrier Conduction.
- \* Plastic Material used Carries Underwriters Laboratory Flammability Classification 94V-O
- \* Pb free
- \* In compliance with EU RoHs directives

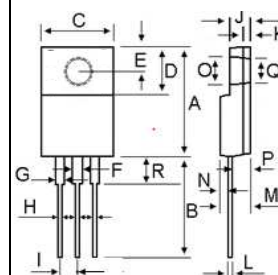


### Schottky Barrier RECTIFIERS

**10 AMPERES  
45 VOLTS**



ITO-220AB



DIM	MILLIMETERS	
	MIN	MAX
A	14.80	16.10
B	12.65	14.40
C	9.70	10.36
D	4.60	6.80
E	2.50	3.50
F	0.90	1.45
G	0.90	1.45
H	0.50	0.90
I	2.40	2.70
J	2.34	3.30
K	0.55	1.30
L	0.36	0.80
M	4.20	4.90
N	1.10	1.80
O	2.90	3.50
P	2.30	3.15
Q	2.90	3.50
R	2.80	4.85

### MAXIMUM RATINGS

Characteristic	Symbol	SRF1045C	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	45	V
RMS Reverse Voltage	$V_{R(RMS)}$	32	V
Average Rectifier Forward Current ( per diode ) Total Device (Rated $V_R$ )	$I_{F(AV)}$	5 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 half-wave, single phase, 60Hz)	$I_{FSM}$	125	A
Junction Temperature	$T_J$	150	°C
Storage Temperature Range	$T_{stg}$	-65 to +150	°C

### ELECTRICAL CHARACTERISTICS

Characteristic	Symbol	Min.	Typ.	Max.	Unit
Maximum Instantaneous Forward Voltage ( $I_F = 5$ Amp $T_C = 25^\circ\text{C}$ ) ( $I_F = 5$ Amp $T_C = 125^\circ\text{C}$ )	$V_F$	---	0.53 0.48	0.6 ---	V
Typical Thermal Resistance junction to case	$R_{\theta jc}$		4.2		°C/w
Maximum Instantaneous Reverse Current ( Rated DC Voltage, $T_C = 25^\circ\text{C}$ ) ( Rated DC Voltage, $T_C = 125^\circ\text{C}$ )	$I_R$	---	0.01 10	0.5 ---	mA



FIG-1 TYPICAL FORWARD CURRENT DERATING CURVE

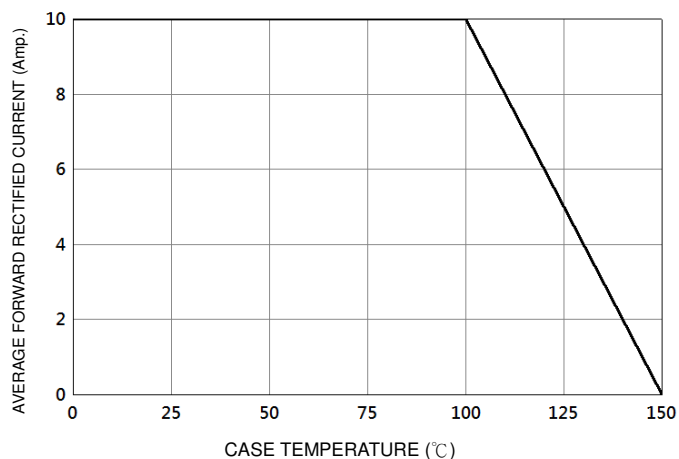


FIG-2 TYPICAL FORWARD CHARACTERISTICS

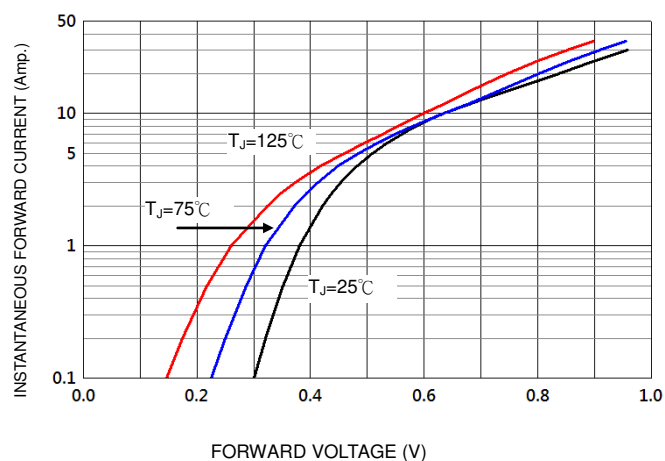


FIG-3 TYPICAL REVERSE CHARACTERISTICS

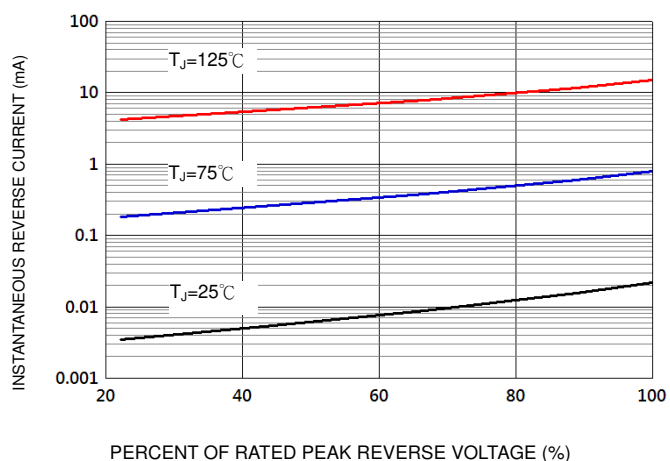


FIG-4 TYPICAL JUNCTION CAPACITANCE

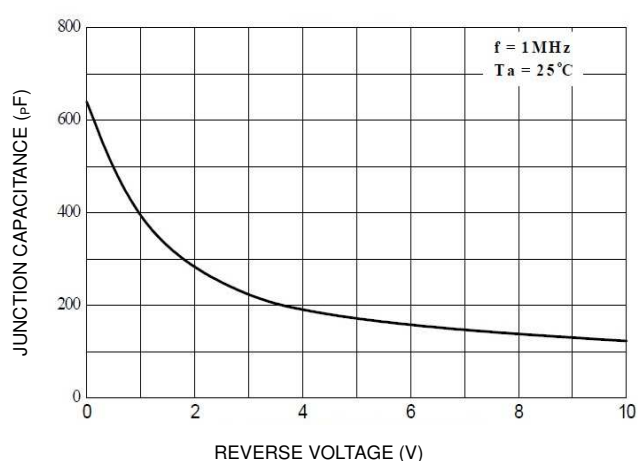
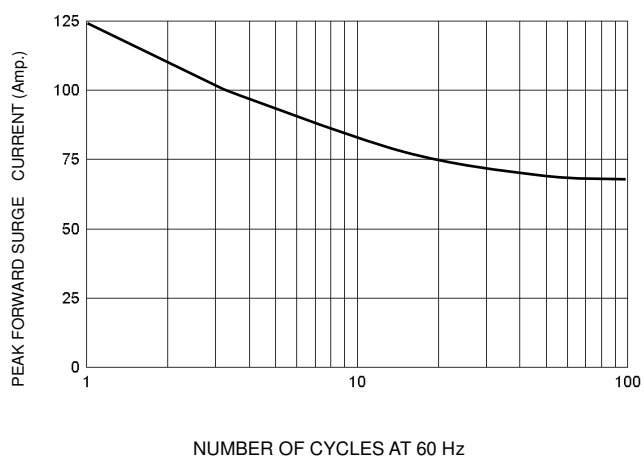


FIG-5 TYPICAL PEAK FORWARD SURGE CURRENT



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