

Switchmode Full Plastic Dual Schottky Barrier Power Rectifiers

Using the Schottky Barrier principle with high temperature operation metal. The proprietary barrier technology allows for reliable operation up to 150°C junction temperature. Typical application are in switching Mode Power Supplies such as adaptators, Photovoltaic Solar cell protection, free-wheeling and polarity protection diodes.

Features

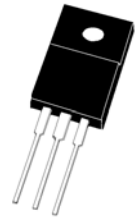
- * Ultra Low Forward Voltage.
- * Low Switching noise.
- * High Current Capacity
- * Low Power Loss & High efficiency.
- * 150°C Operating Junction Temperature
- * Low Stored Charge Majority Carrier Conduction.
- * Plastic Material used Carries Underwriters Laboratory Flammability Classification 94V-O

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

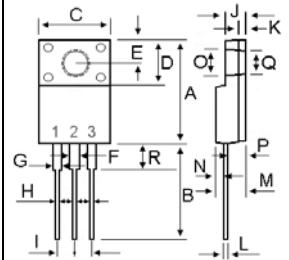


SCHOTTKY BARRIER RECTIFIERS

**30 AMPERES
45VOLTS**



ITO-220AB



DIM	MILLIMETERS	
	MIN	MAX
A	14.90	15.15
B	13.35	13.55
C	10.00	10.10
D	6.55	6.65
E	2.65	2.75
F	1.55	1.65
G	1.15	1.25
H	0.55	0.65
I	2.50	2.60
J	3.00	3.20
K	1.10	1.20
L	0.55	0.65
M	4.40	4.60
N	1.15	1.25
O	3.35	3.45
P	2.65	2.75
Q	3.15	3.25
R	3.60	3.80

MAXIMUM RATINGS

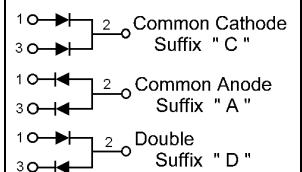
Characteristic	Symbol	SRF3045CL	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	45	V
RMS Reverse Voltage	$V_{R(RMS)}$	31.5	V
Average Rectifier Forward Current (per diode) Total Device (Rated V_R), $T_C=125^\circ\text{C}$	$I_{F(AV)}$	15 30	A
Peak Repetitive Forward Current (Rate V_R , Square Wave, 20kHz)	I_{FM}	30	A
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions halfware, single phase, 60Hz)	I_{FSM}	275	A
Operating and Storage Junction Temperature Range	T_J , T_{stg}	-65 to +150	$^\circ\text{C}$

THERMAL RESISTANCES

Typical Thermal Resistance junction to case(per diode)	$R_{\theta j-c}$	3.2	$^\circ\text{C}/\text{w}$
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ELECTRICAL CHARACTERISTICS

Characteristic	Symbol	SRF3045CL			Unit
Maximum Instantaneous Forward Voltage (per diode) ($I_F=0.1$ Amp $T_C=25^\circ\text{C}$) ($I_F=7.5$ Amp $T_C=25^\circ\text{C}$) ($I_F=15$ Amp $T_C=25^\circ\text{C}$)	V_F	Min	Typ.	Max.	V
		---	0.20	0.24	
		---	0.36	0.38	
		---	0.43	0.49	
Maximum Instantaneous Reverse Current (Rated DC Voltage, $T_C=25^\circ\text{C}$) (Rated DC Voltage, $T_C=100^\circ\text{C}$)	I_R	0.5 60			mA



SRF3045CL

FIG-1 FORWARD CURRENT DERATING CURVE

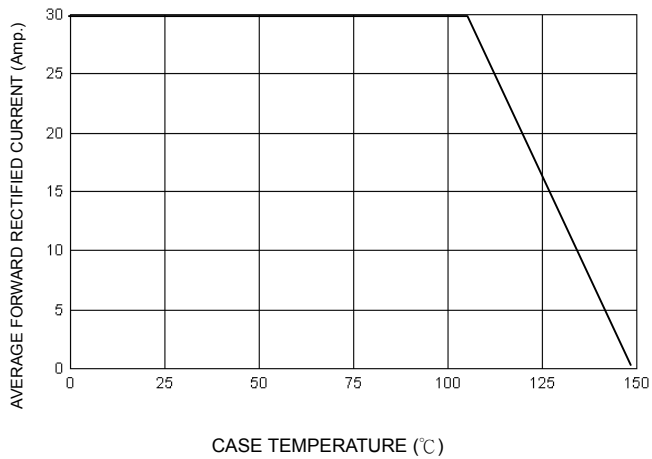


FIG-2 TYPICAL FORWARD CHARACTERISTICS

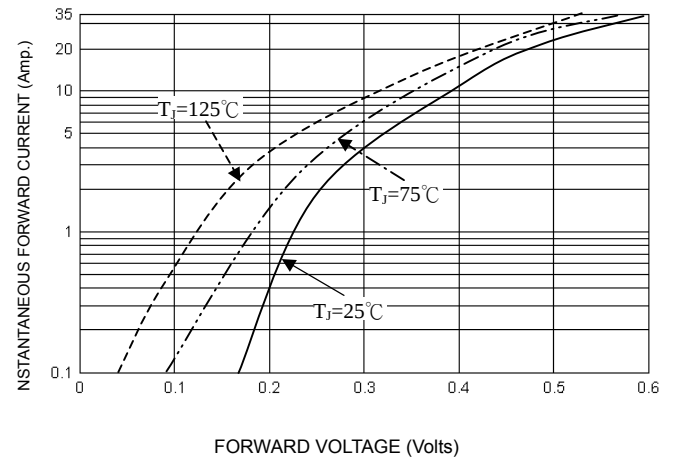


FIG-3 TYPICAL REVERSE CHARACTERISTICS

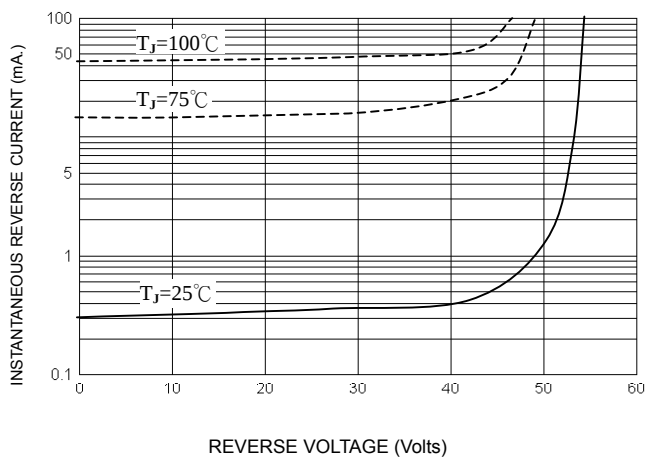


FIG-4 TYPICAL JUNCTION CAPACITANCE

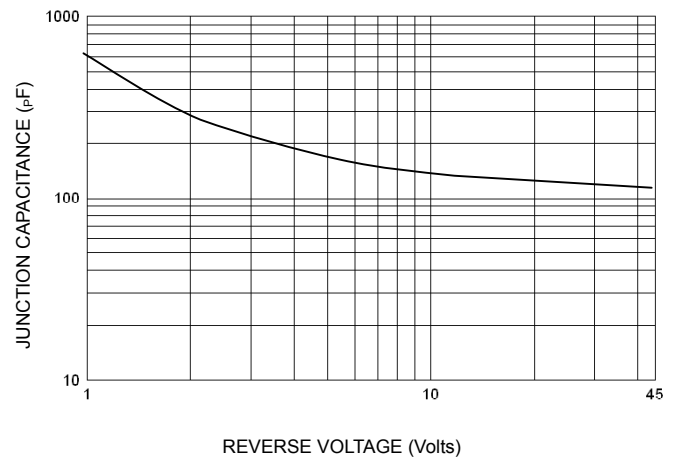


FIG-5 PEAK FORWARD SURGE CURRENT

