MOSPEC

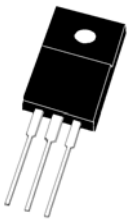
S40T100F

Dual Schottky Barrier Power Rectifiers

Using the Schottky Barrier principle with a Refractory metal capable of high temperature operation metal. The proprietary barrier technology allows for reliable operation up to 150℃ junction temperature. Typical application are in switching Mode Power Supplies such as adaptors, DC/DC converters, free-wheeling and polarity protection diodes.

Schottky Barrier
RECTIFIERS

40 AMPERES
100 VOLTS

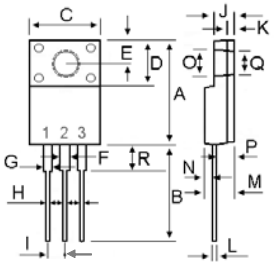


ITO-220AB

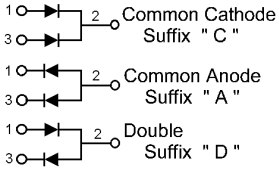
Features

- ∗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 Flammability Classification 94V-O
- ∗*In compliance with EU RoHs 2002/95/EC directives*

∗Mounting Torqure: 5 in-lbs.Max.



DIM	MILLIMETERS	
	MIN	MAX
A	14.80	16.1
B	12.65	13.8
C	9.9	10.36
D	4.6	6.8
E	2.5	3.5
F	1.00	1.45
G	1.00	1.45
H	0.3	0.9
I	2.3	2.7
J	2.34	3.3
K	0.55	1.30
L	0.36	0.80
M	4.2	4.9
N	1.1	1.8
O	2.9	3.5
P	2.5	3.15
Q	2.9	3.5
R	3.1	3.8



MAXIMUM RATINGS

Characteristic	Symbol	S40T100F	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	100	V
RMS Reverse Voltage	$V_{R(RMS)}$	70	V
Average Rectifier Forward Current (per diode) Total Device (Rated V_R),	$I_{F(AV)}$	20 40	A
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions halfware, single phase, 60Hz)	I_{FSM}	250	A
Operating and Storage Junction Temperature Range	T_J , T_{stg}	-65 to +150	℃

THERMAL RESISTANCES

Typical Thermal Resistance junction to case (per device)	$R_{\theta j-c}$	4.4	℃/w

ELECTRICAL CHARACTERISTICS

Characteristic	Symbol	Min	Typ.	Max.	Unit
Maximum Instantaneous Forward Voltage (per diode) (I_F =20.0 Amp T_C = 25℃) (I_F =20.0 Amp T_C = 125℃)	V_F	 --- ---	 0.65 0.64	 0.69 --	V
Maximum Instantaneous Reverse Current (Rated DC Voltage, T_C = 25℃) (Rated DC Voltage, T_C = 125℃)	I_R	 -- --	 0.05 50	 0.1 --	mA

S40T100F

FIG-1 FORWARD CURRENT DERATING CURVE

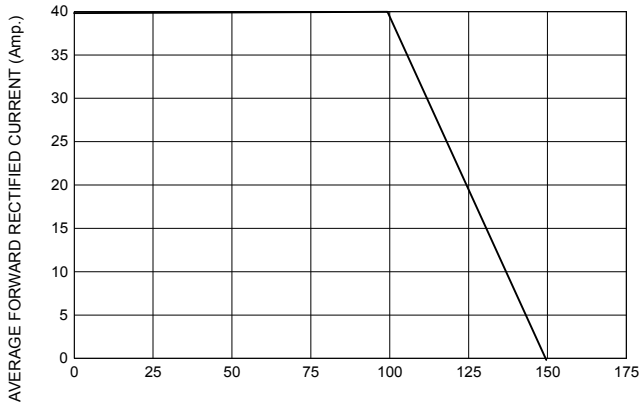


FIG-2 TYPICAL FORWARD CHARACTERISITICS

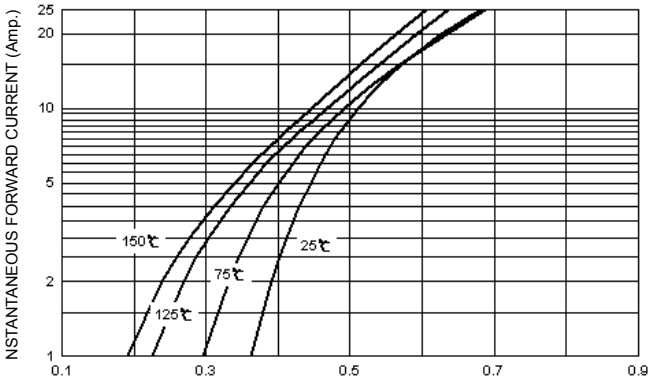


FIG-3 TYPICAL REVERSE CHARACTERISTICS

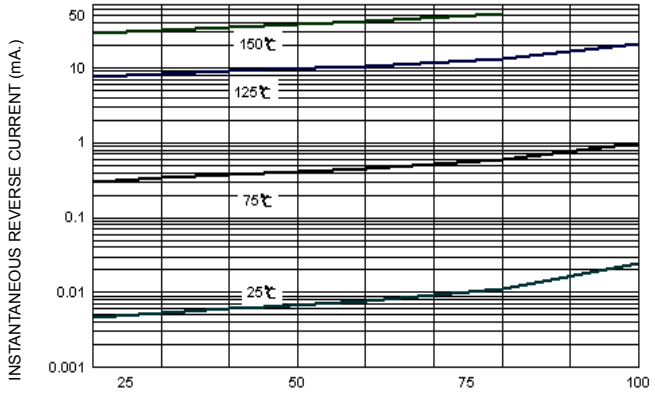


FIG-4 TYPICAL JUNCTION CAPACITANCE

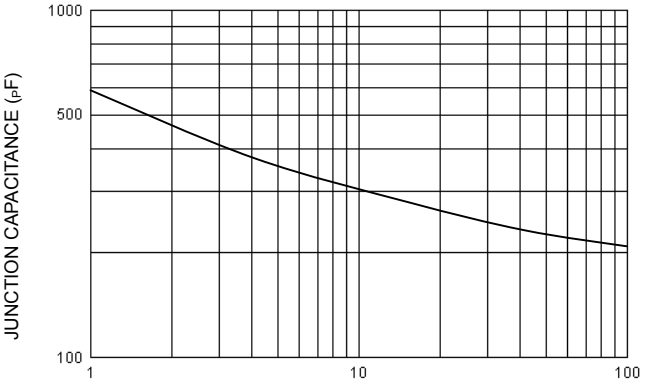


FIG-5 PEAK FORWARD SURGE CURRENT

