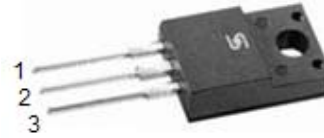


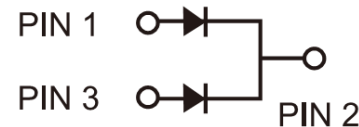
Trench Schottky Rectifier

FEATURES

- Patented Trench Schottky technology
- Excellent high temperature stability
- Low forward voltage
- Low power loss/ high efficiency
- High forward surge capability
- Compliant to RoHS directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition



ITO-220AB



TYPICAL APPLICATIONS

Trench Schottky barrier rectifier are designed for high frequency miniature switched mode power supplies such as adapters, lighting and on-board DC/DC converters.

MECHANICAL DATA

Case: ITO-220AB

Molding compound, UL flammability classification rating 94V-0

Packing code with suffix "G" means green compound (halogen-free)

Terminal: Matte tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 2 whisker test

Polarity: As marked

Mounting torque: 0.56 Nm max.

Weight: 1.7g (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A = 25°C unless otherwise noted)							
PARAMETER			SYMBOL	TSF30U45C			UNIT
Maximum repetitive peak reverse voltage			V _{RRM}	45			V
Maximum average forward rectified current	per device		I _{F(AV)}	30			A
	per diode			15			
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load per diode			I _{FSM}	250			A
Voltage rate of change (rated VR)			dV/dt	10000			V/μs
Isolation voltage from terminal to heatsink t = 1 min			V _{AC}	1500			V
				Min.	TYP.	MAX.	
Breakdown voltage (I _R = 1.0mA)			V _{BR}	45	-	-	V
Instantaneous forward voltage per diode (Note1)	I _F = 15A	T _J = 25°C	V _F	-	0.450	0.50	V
	I _F = 15A	T _J = 125°C		-	0.415	0.45	
Instantaneous reverse current per diode at rated reverse voltage	T _J = 25°C		I _R	-	150	500	μA
	T _J = 125°C			-	50	100	mA
Typical thermal resistance per diode			R _{θJC}	4			°C/W
Operating junction temperature range			T _J	- 55 to +150			°C
Storage temperature range			T _{STG}	- 55 to +150			°C

Note 1: Pulse test with pulse width = 300μs, 1% duty cycle

ORDERING INFORMATION

PART NO.	PACKING CODE	PACKING CODE SUFFIX	PACKAGE	PACKING
TSF30U45C	C0	G	ITO-220AB	50 / Tube

EXAMPLE

PREFERRED PART NO.	PART NO.	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
TSF30U45C C0G	TSF30U45C	C0	G	Green compound

RATINGS AND CHARACTERISTICS CURVES

($T_A = 25^\circ\text{C}$ unless otherwise noted)

FIG. 1 FORWARD CURRENT DERATING CURVE

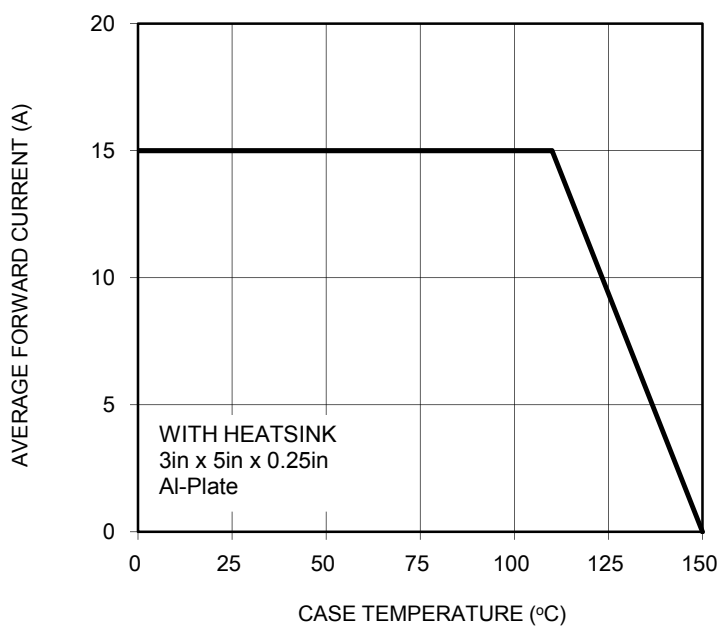


FIG. 2 TYPICAL FORWARD CHARACTERISTICS

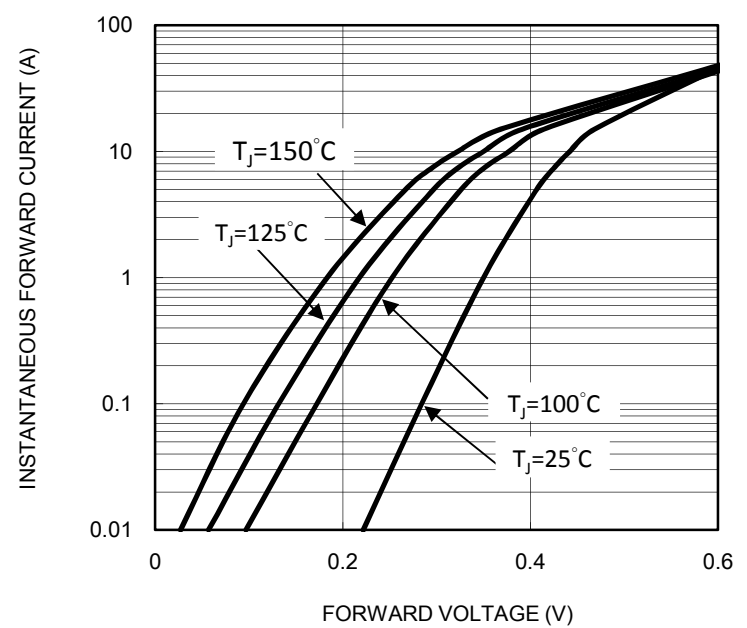


FIG. 3 TYPICAL REVERSE CHARACTERISTICS

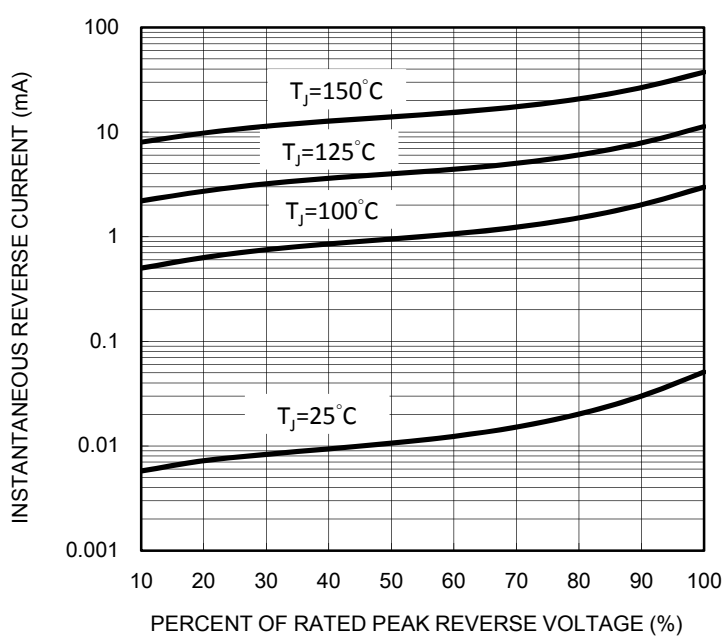
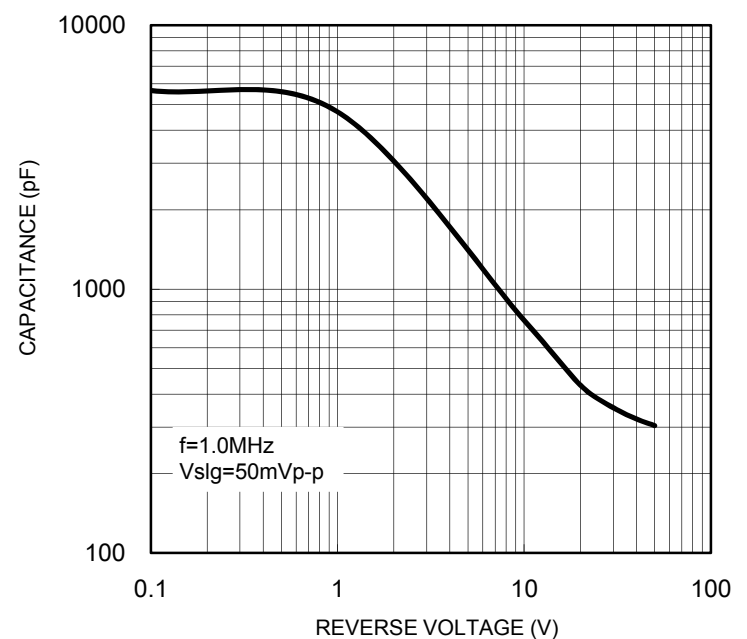
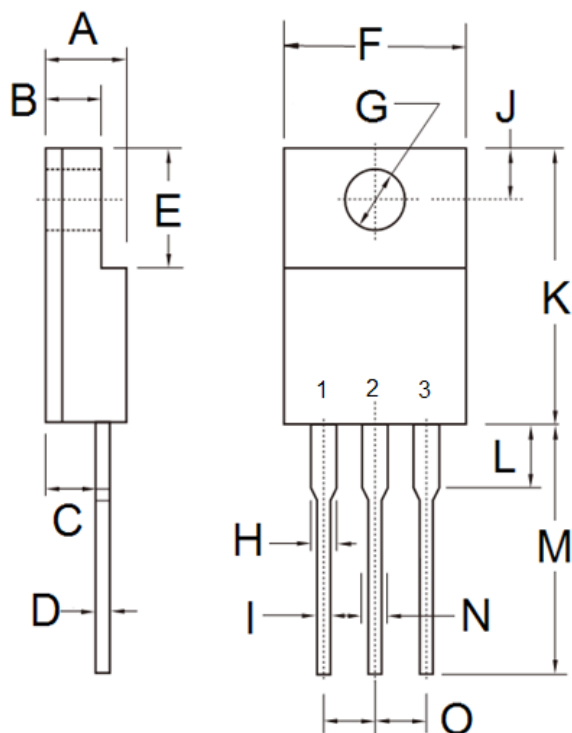


FIG. 4 TYPICAL JUNCTION CAPACITANCE

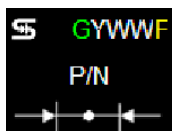


PACKAGE OUTLINE DIMENSIONS
ITO-220AB



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	4.30	4.70	0.169	0.185
B	2.50	3.16	0.098	0.124
C	2.30	2.96	0.091	0.117
D	0.46	0.76	0.018	0.030
E	6.30	6.90	0.248	0.272
F	9.60	10.30	0.378	0.406
G	3.00	3.40	0.118	0.134
H	0.95	1.45	0.037	0.057
I	0.50	0.90	0.020	0.035
J	2.40	3.20	0.094	0.126
K	14.80	15.50	0.583	0.610
L	-	4.10	-	0.161
M	12.60	13.80	0.496	0.543
N	-	1.45	-	0.057
O	2.41	2.67	0.095	0.105

MARKING DIAGRAM



- P/N = Specific Device Code
- G = Green Compound
- YWW = Date Code
- F = Factory Code

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