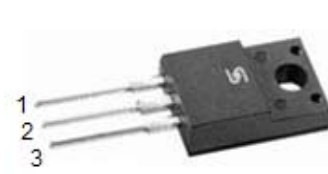
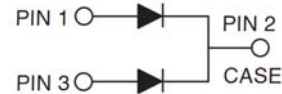


## Trench Schottky Rectifier

### 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 meets UL 94 V-0 flammability rating

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:** 1.7 g (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> = 25°C unless otherwise noted)									
PARAMETER				SYMBOL	TSF30H45C		TSF30H60C		UNIT
Maximum repetitive peak reverse voltage				V <sub>RRM</sub>	45		60		V
Maximum average forward rectified current		per device		I <sub>F(AV)</sub>	30				A
		per diode			15				
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load per diode				I <sub>FSM</sub>	170				A
Voltage rate of change (Rated V <sub>R</sub> )				dV/dt	10000				V/μs
					TYP.	MAX.	TYP.	MAX.	
Instantaneous forward voltage per diode (Note1)		I <sub>F</sub> = 5A		V <sub>F</sub>	0.43	-	0.45	-	V
		I <sub>F</sub> = 7.5A			0.46	-	0.48	-	
		I <sub>F</sub> = 15A			0.53	0.61	0.55	0.70	
		I <sub>F</sub> = 5A			0.34	-	0.36	-	
		I <sub>F</sub> = 7.5A			0.39	-	0.41	-	
		I <sub>F</sub> = 15A			0.50	-	0.52	-	
Instantaneous reverse current per diode at rated reverse voltage			T <sub>J</sub> = 25°C	I <sub>R</sub>	25	500	15	500	μA
			T <sub>J</sub> = 125°C		15	70	10	45	mA
Typical thermal resistance per diode				R <sub>θJC</sub>	4.5				°C/W
Operating junction temperature range				T <sub>J</sub>	- 55 to +150				°C
Storage temperature range				T <sub>STG</sub>	- 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
TSF30HXXC (Note 1)	C0	G	ITO-220AB	50 / Tube

Note 1: "XX" defines voltage from 45V (TSF30H45C) to 60V (TSF30H60C)

EXAMPLE				
PREFERRED PART NO.	PART NO.	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
TSF30H60C C0G	TSF30H60C	C0	G	Green compound

## RATINGS AND CHARACTERISTICS CURVES

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

FIG. 1 FORWARD CURRENT DERATING CURVE

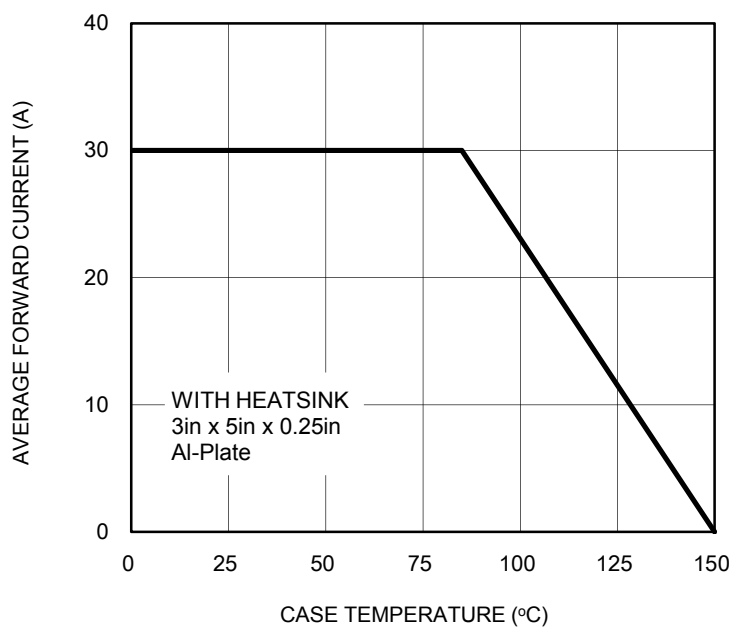


FIG. 2 TYPICAL FORWARD CHARACTERISTICS

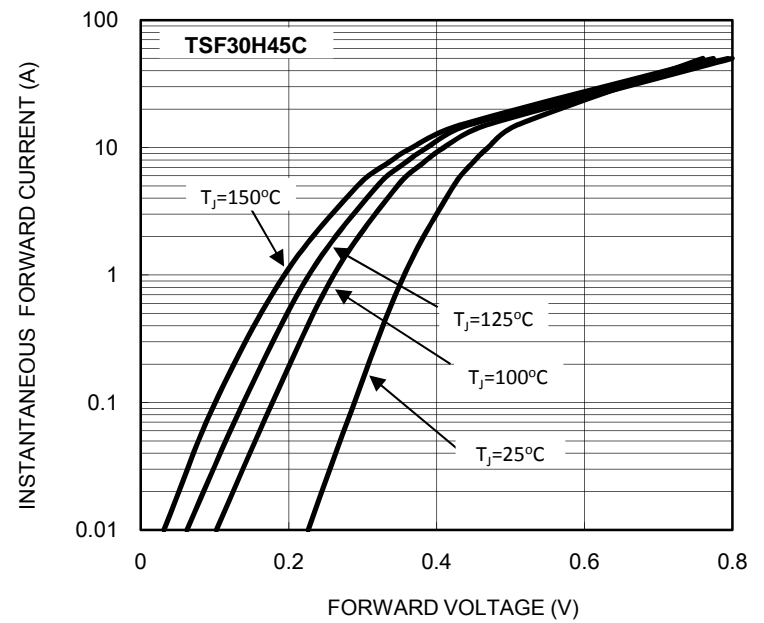


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

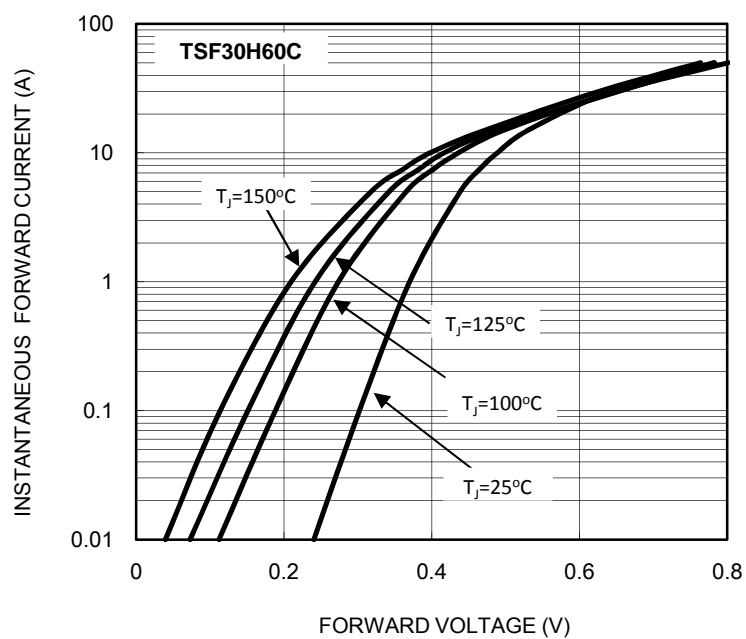


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

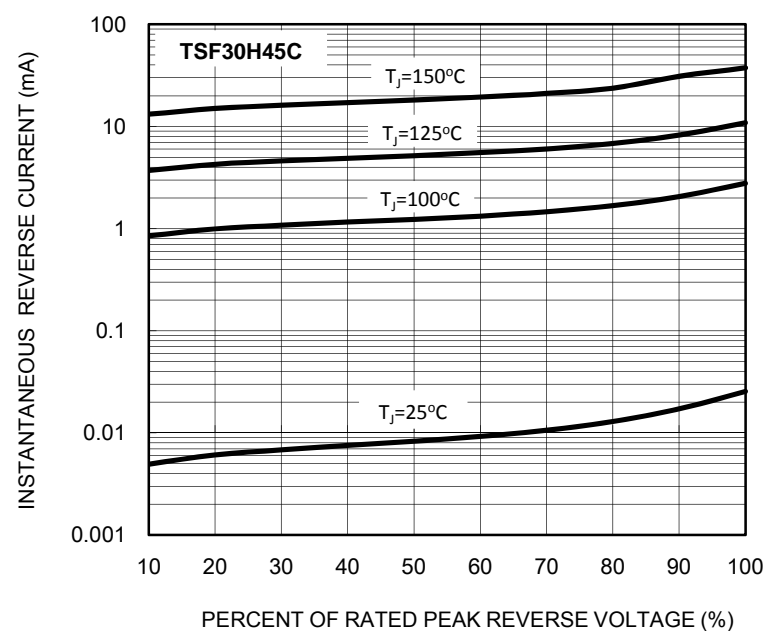


FIG. 5 TYPICAL REVERSE CHARACTERISTICS

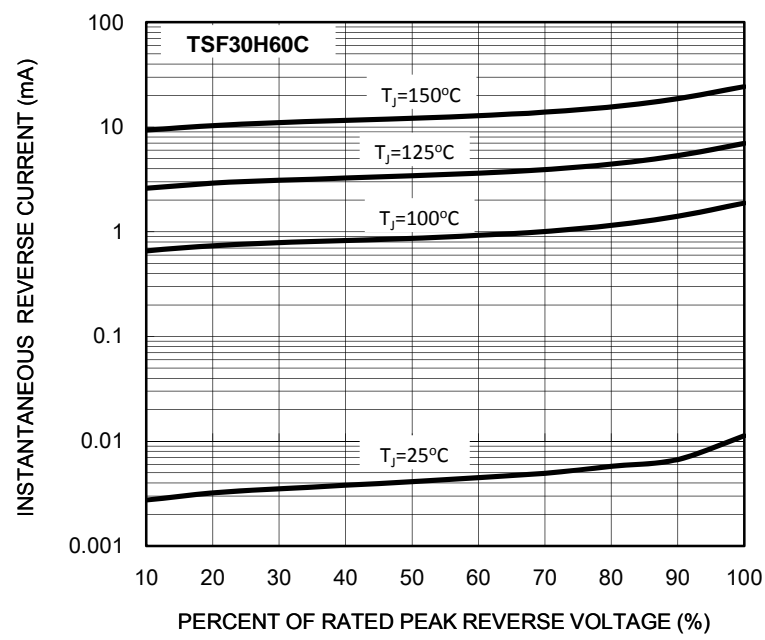
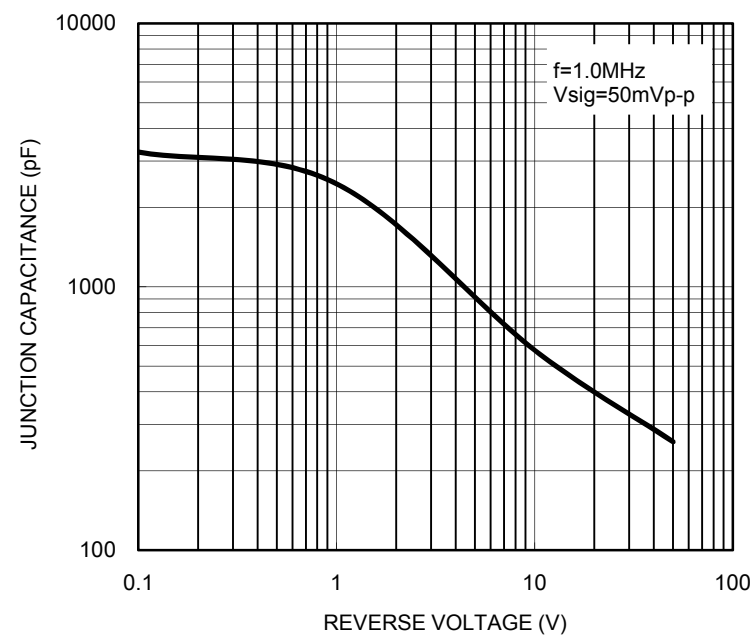
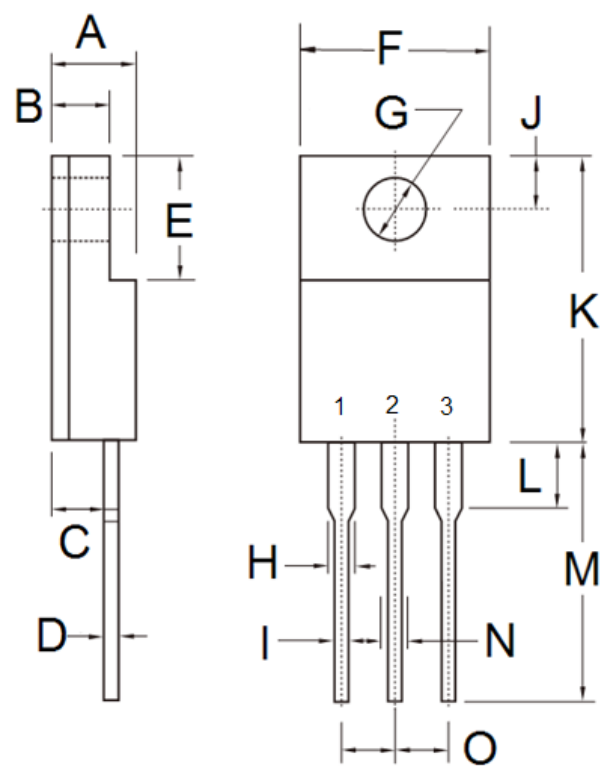


FIG. 6 TYPICAL JUNCTION CAPACITANCE

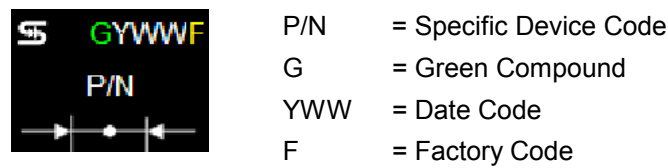


PACKAGE OUTLINE DIMENSIONS  
ITO-220AB



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	4.30	4.70	0.17	0.19
B	2.50	3.16	0.10	0.12
C	2.30	2.96	0.09	0.12
D	0.46	0.76	0.02	0.03
E	6.30	6.90	0.25	0.27
F	9.60	10.30	0.38	0.41
G	3.00	3.40	0.12	0.13
H	0.95	1.45	0.04	0.06
I	0.50	0.90	0.02	0.04
J	2.40	3.20	0.09	0.13
K	14.80	15.50	0.58	0.61
L	-	4.10	-	0.16
M	12.60	13.80	0.50	0.54
N	-	1.80	-	0.07
O	2.41	2.67	0.09	0.11

MARKING DIAGRAM



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