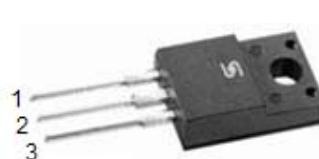
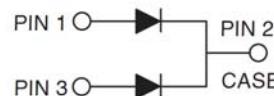


Trench Schottky Rectifier

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 ($T_A = 25^\circ\text{C}$ unless otherwise noted)									
PARAMETER		SYMBOL	TSF30H45C		TSF30H60C		UNIT		
Maximum repetitive peak reverse voltage		V_{RRM}	45		60		V		
Maximum average forward rectified current	per device	$I_{F(AV)}$	30				A		
	per diode		15						
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load per diode		I_{FSM}	170				A		
Voltage rate of change (Rated V_R)		dV/dt	10000				V/ μ s		
			TYP.	MAX.	TYP.	MAX.			
Instantaneous forward voltage per diode (Note1)	$I_F = 5\text{A}$	$T_J = 25^\circ\text{C}$	0.43	-	0.45	-	V		
	$I_F = 7.5\text{A}$		0.46	-	0.48	-			
	$I_F = 15\text{A}$		0.53	0.61	0.55	0.70			
	$I_F = 5\text{A}$	$T_J = 125^\circ\text{C}$	0.34	-	0.36	-			
	$I_F = 7.5\text{A}$		0.39	-	0.41	-			
	$I_F = 15\text{A}$		0.50	-	0.52	-			
Instantaneous reverse current per diode at rated reverse voltage	$T_J = 25^\circ\text{C}$	I_R	25	500	15	500	μA		
	$T_J = 125^\circ\text{C}$		15	70	10	45	mA		
Typical thermal resistance per diode			$R_{\theta JC}$		4.5		$^\circ\text{C}/\text{W}$		
Operating junction temperature range			T_J	- 55 to +150				$^\circ\text{C}$	
Storage temperature range			T_{STG}	- 55 to +150				$^\circ\text{C}$	

Note 1: Pulse test with pulse width = 300 μ s, 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

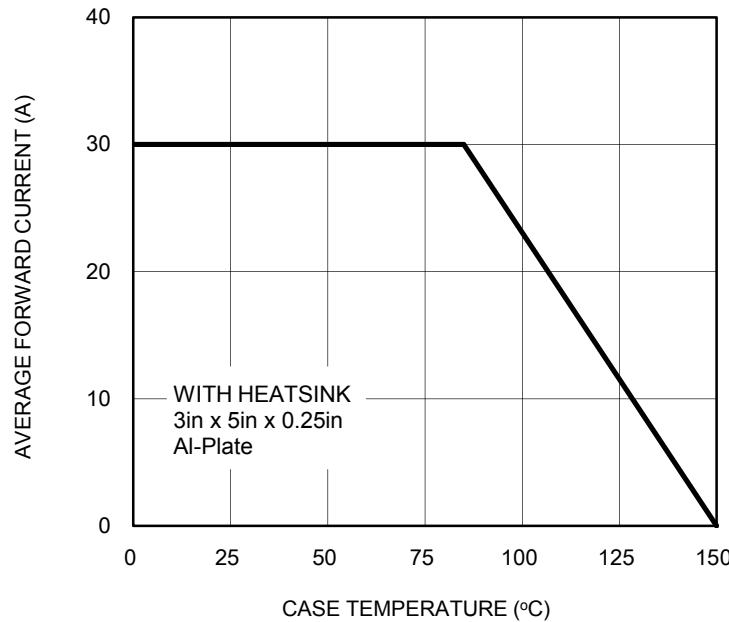


FIG. 2 TYPICAL FORWARD CHARACTERISTICS

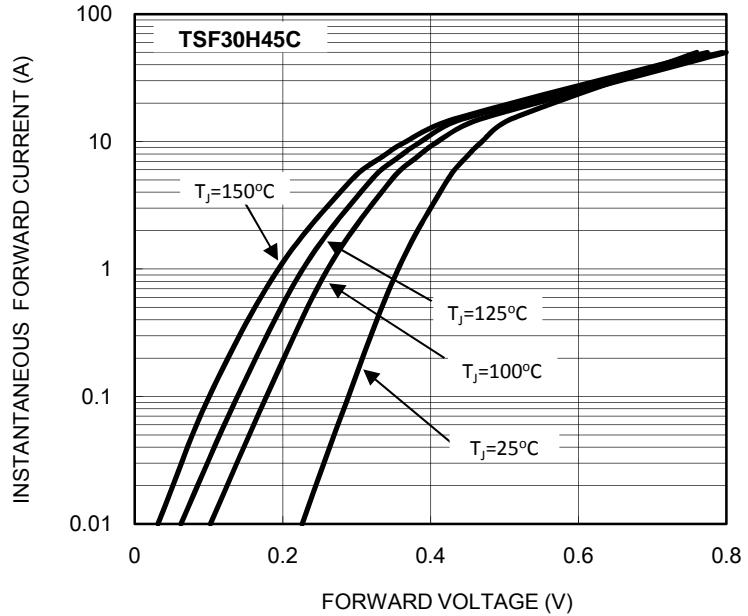


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

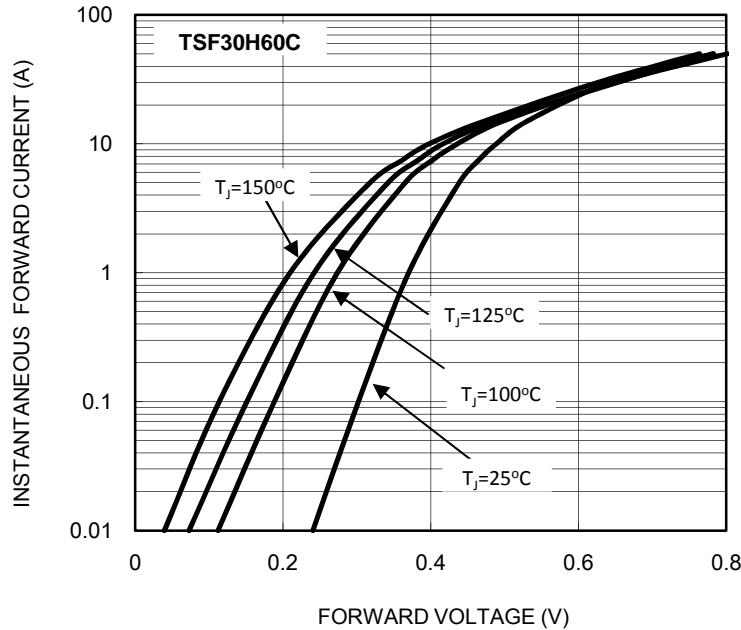


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

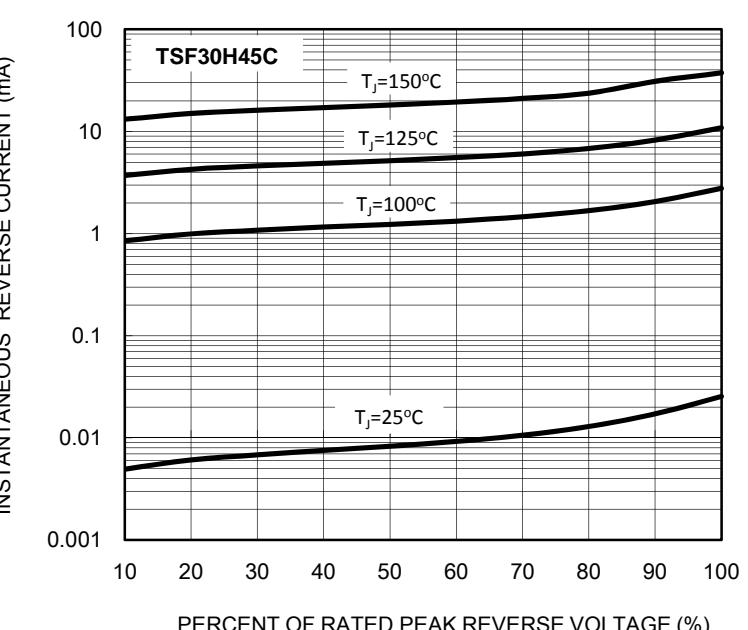


FIG. 5 TYPICAL REVERSE CHARACTERISTICS

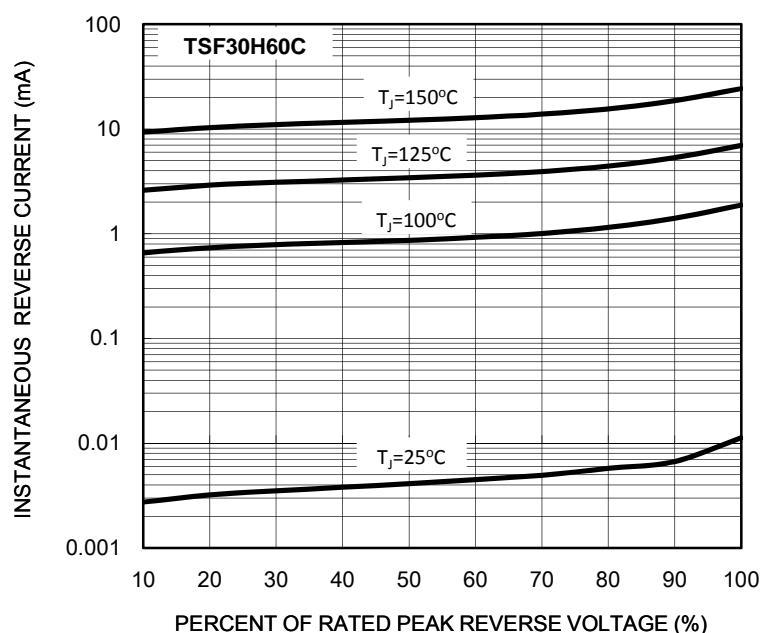
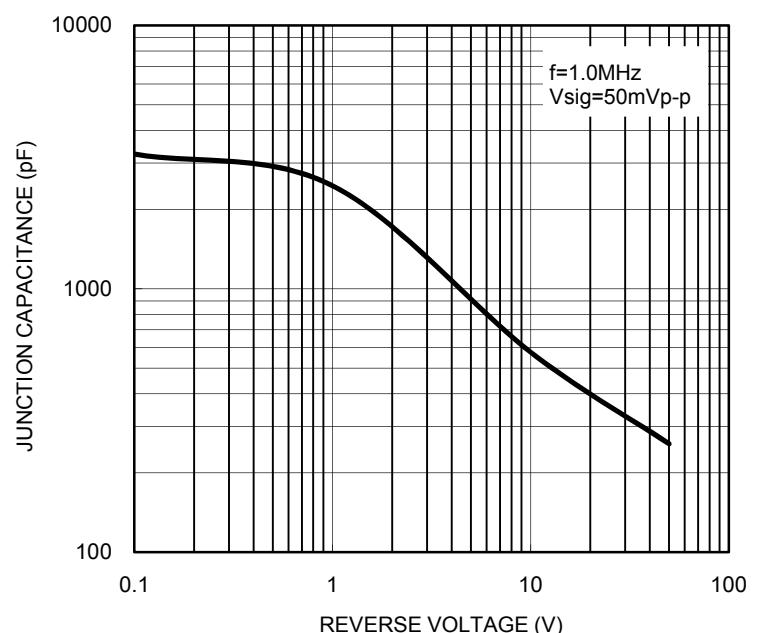
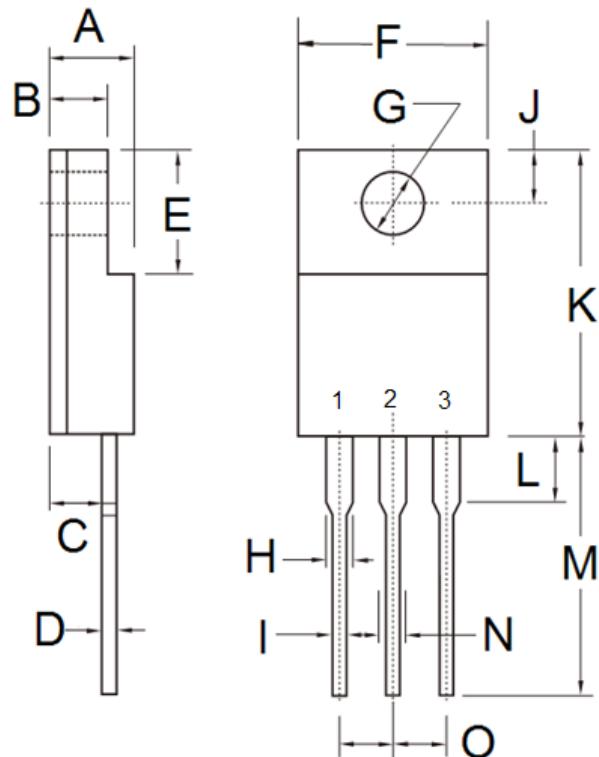


FIG. 6 TYPICAL JUNCTION CAPACITANCE



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



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

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