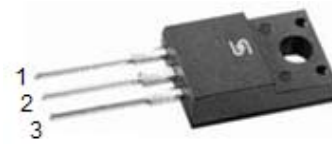


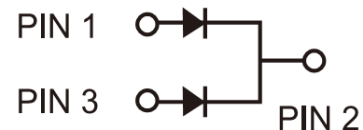
## Trench MOS Barrier Schottky Rectifier

### FEATURES

- Patented Trench MOS Barrier Schottky technology
- Excellent high temperature stability
- Low forward voltage
- Lower 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**



### MECHANICAL DATA

**Case:** ITO-220AB

Molding compound meets UL 94 V-0 flammability rating

Base P/N with suffix "G" on packing code - halogen-free, RoHS compliant

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

Meet JESD 201 class 1A whisker test

**Polarity:** As marked

**Mounting torque:** 5 in-lbs. max.

**Weight:** 1.7g (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS(TA=25°C unless otherwise noted)							
PARAMETER		SYMBOL	TSF30H120C			UNIT	
Maximum repetitive peak reverse voltage		$V_{RRM}$	120			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		$I_{FSM}$	150			A	
Voltage rate of change (Rated $V_R$ )		dV/dt	10000			V/ $\mu$ s	
Isolation voltage from terminal to heatsink t = 1 min		$V_{AC}$	1500			V	
Breakdown voltage ( $I_R = 1.0mA$ , $T_a = 25^\circ C$ )		$V_{BR}$	MIN.	TYP.	MAX.	V	
			120	-	-		
Instantaneous forward voltage per diode ( Note1 )	$I_F = 5A$	$T_J = 25^\circ C$	$V_F$	-	0.65	-	V
	$I_F = 7.5A$			-	0.70	-	
	$I_F = 15A$			-	0.81	0.93	
	$I_F = 5A$	$T_J = 125^\circ C$	$V_F$	-	0.53	-	
	$I_F = 7.5A$			-	0.58	-	
	$I_F = 15A$			-	0.67	0.75	
Instantaneous reverse current per diode at rated reverse voltage	$T_J = 25^\circ C$	$I_R$	-	-	500	$\mu$ A	
	$T_J = 125^\circ C$		-	-	20	mA	
Typical thermal resistance per diode		$R_{\theta JC}$	4.5			$^\circ C/W$	
Operating junction temperature range		$T_J$	- 55 to +150			$^\circ C$	
Storage temperature range		$T_{STG}$	- 55 to +150			$^\circ C$	

Note 1: Pulse Test with Pulse Width=300  $\mu$ s, 1% Duty Cycle

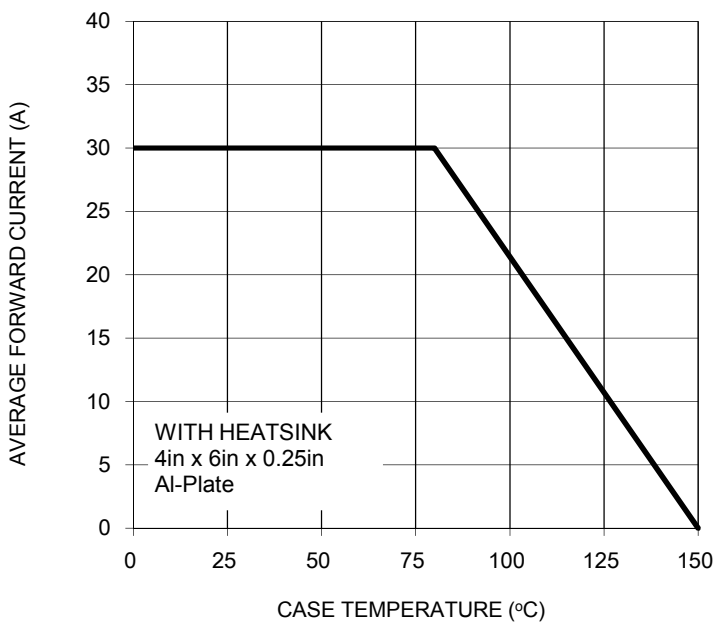
ORDERING INFORMATION				
PART NO.	PACKING CODE	GREEN COMPOUND CODE	PACKAGE	PACKING
TSH30H120C	C0	Suffix "G"	ITO-220AB	50 / Tube

EXAMPLE				
PREFERRED P/N	PART NO.	PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION
TSF30H120C C0	TSF30H120C	C0		
TSF30H120C C0G	TSF30H120C	C0	G	Green compound

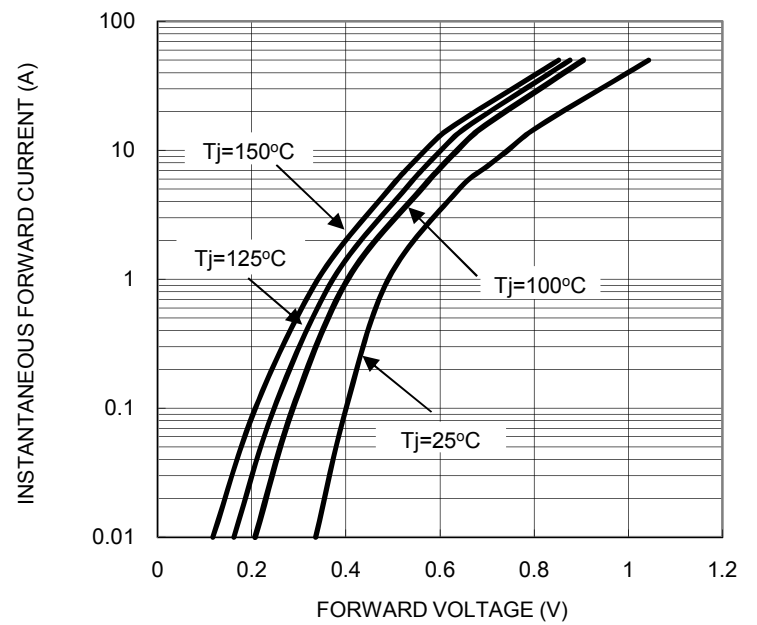
**RATINGS AND CHARACTERISTICS CURVES**

(TA=25°C unless otherwise noted)

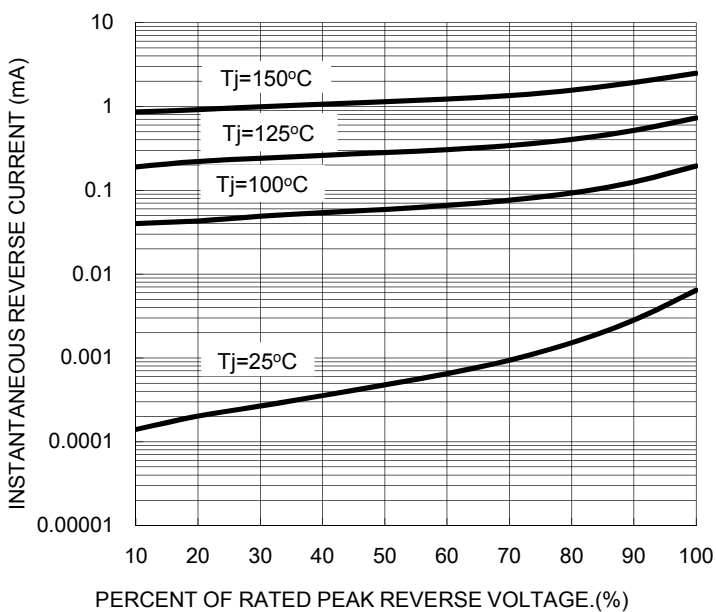
**FIG. 1 FORWARD CURRENT DERATING CURVE**



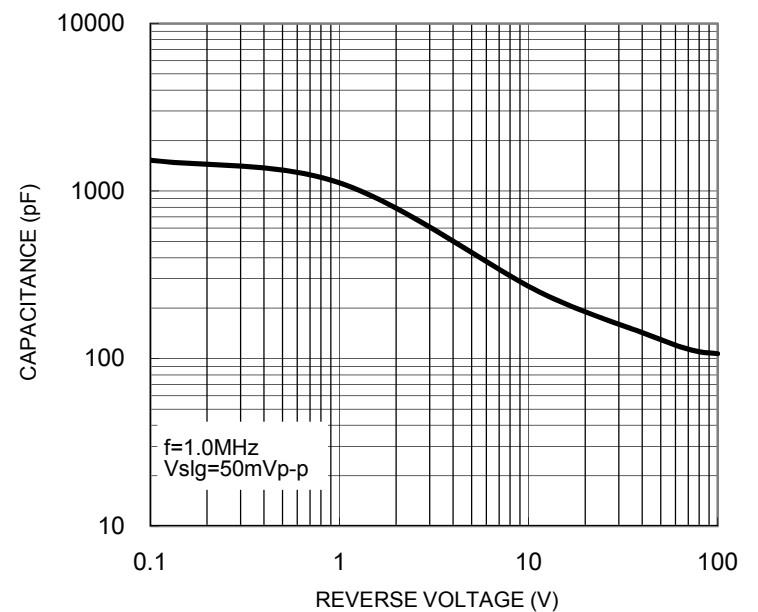
**FIG. 2 TYPICAL FORWARD CHARACTERISTICS**



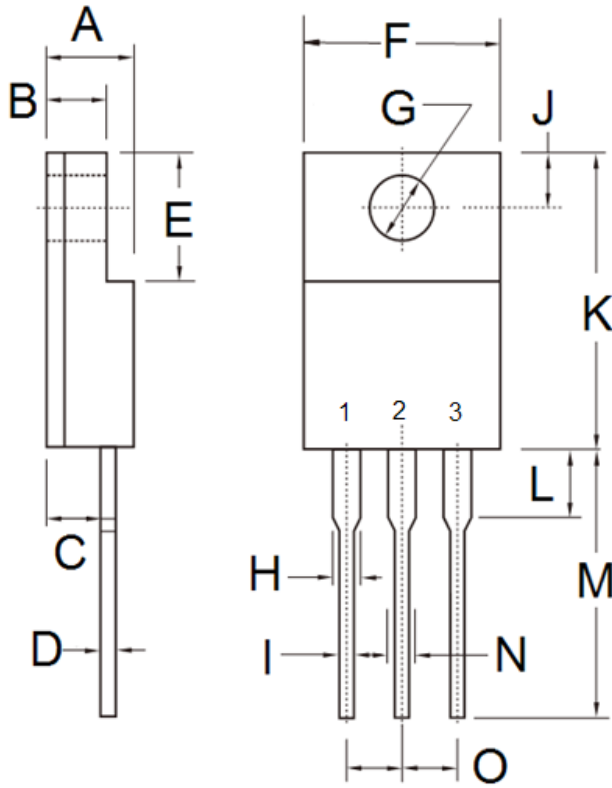
**FIG. 3 TYPICAL REVERSE CHARACTERISTICS**



**FIG. 4 TYPICAL JUNCTION CAPACITANCE**

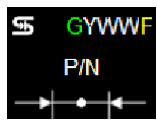


PACKAGE OUTLINE DIMENSIONS



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