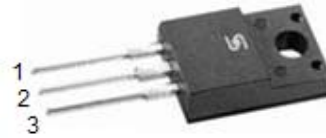
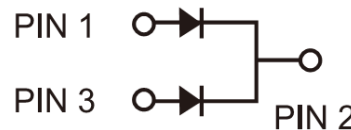


## Trench MOS Barrier Schottky Rectifier

### 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


**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 :** 1.7 gram (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS(TA=25°C unless otherwise noted)										
PARAMETER			SYMBOL	TSF20H100C	TSF20H120C	TSF20H150C	UNIT			
Maximum repetitive peak reverse voltage			$V_{RRM}$	100	120	150	V			
Maximum average forward rectified current	per device		$I_{F(AV)}$	20			A			
	per diode			10						
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load per diode			$I_{FSM}$	110			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 ( $I_R = 1.0mA$ , $T_a = 25^\circ C$ )			$V_{BR}$	100	120	150	V			
				Typ.	Max.	Typ.	Max.	Typ.	Max.	
Instantaneous forward voltage per diode ( Note1 )	$I_F = 5A$	$T_J = 25^\circ C$	$V_F$	0.64	-	0.68	-	0.73	-	
	$I_F = 10A$			0.74	0.81	0.78	0.87	0.81	1.10	
	$I_F = 5A$	$T_J = 125^\circ C$	$V_F$	0.55	-	0.56	-	0.59	-	
	$I_F = 10A$			0.63	0.70	0.63	0.69	0.67	0.73	
Instantaneous reverse current per diode at rated reverse voltage		$T_J = 25^\circ C$	$I_R$	-	200	-	250	-	150	$\mu$ A
		$T_J = 125^\circ C$		1.5	10	5	15	3	10	mA
Typical thermal resistance per diode			$R_{\theta JC}$	2.5	4.9	3.8	$^\circ C/W$			
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=300us, 1% Duty Cycle

**ORDERING INFORMATION**

PART NO.	PACKING CODE	PACKAGE	PACKING
TSF20HXXC	C0	ITO-220AB	50 / Tube

Note 1: "xxx" defines voltage from 100V (TSF20H100C) to 150V (TSF20H150C)

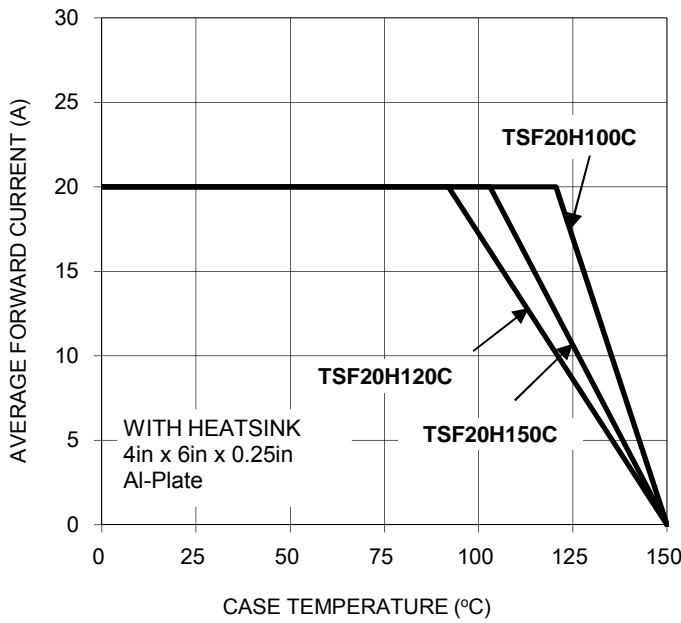
**EXAMPLE**

PREFERRED P/N	PART NO.	PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION
TSF20H120C C0	TSF20H120C	C0		
TSF20H120C C0G	TSF20H120C	C0	G	Green compound

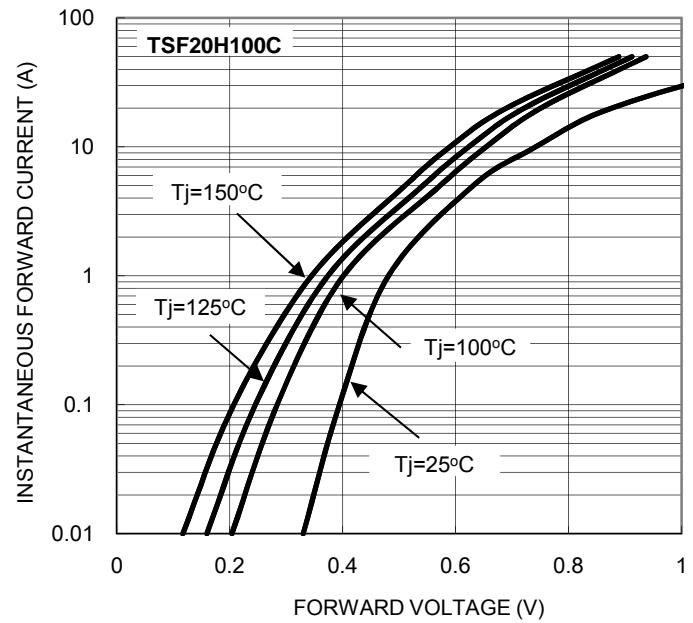
**RATINGS AND CHARACTERISTICS CURVES**

(TA=25°C unless otherwise noted)

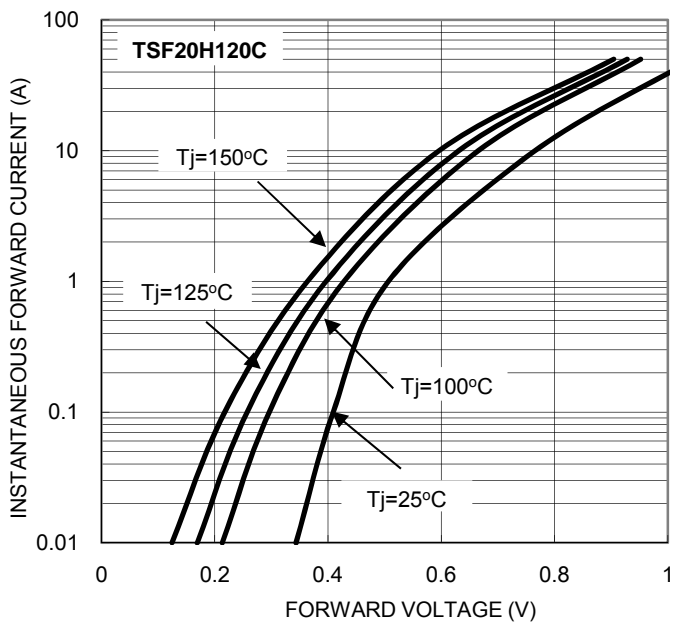
**FIG. 1 FORWARD CURRENT DERATING CURVE**



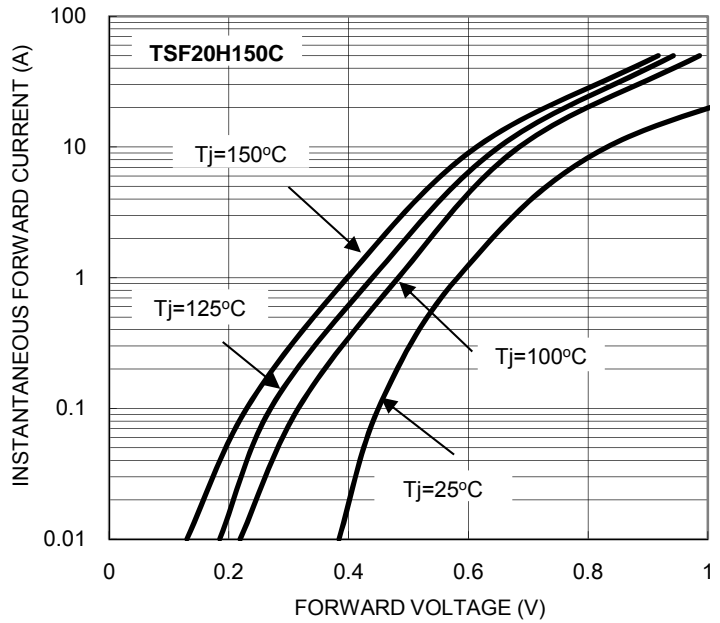
**FIG. 2 TYPICAL FORWARD CHARACTERISTICS**



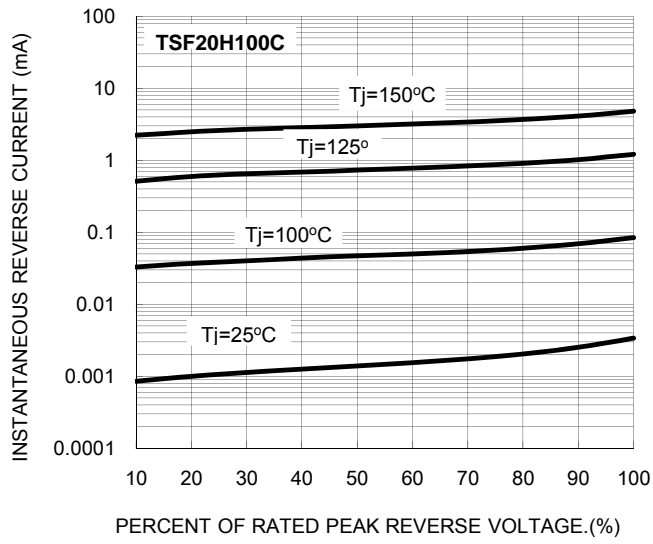
**FIG. 3 TYPICAL FORWARD CHARACTERISTICS**



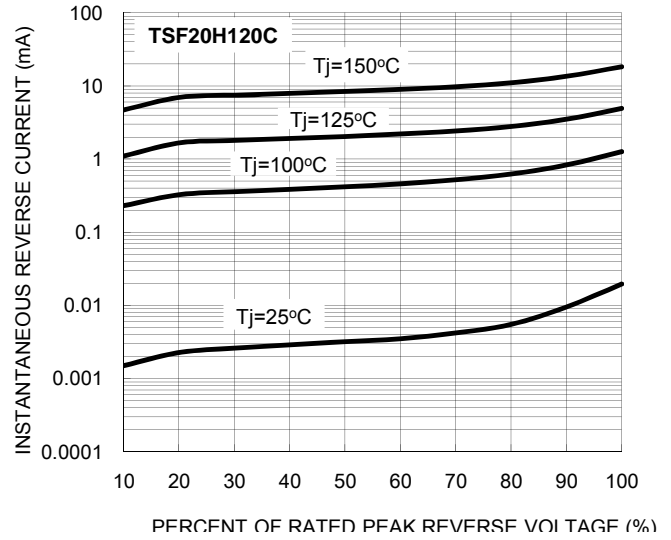
**FIG. 4 TYPICAL FORWARD CHARACTERISTICS**



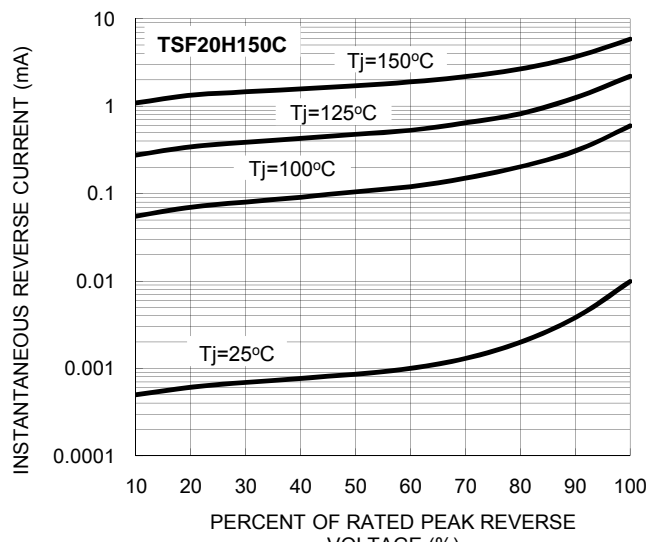
**FIG. 5 TYPICAL REVERSE CHARACTERISTICS**



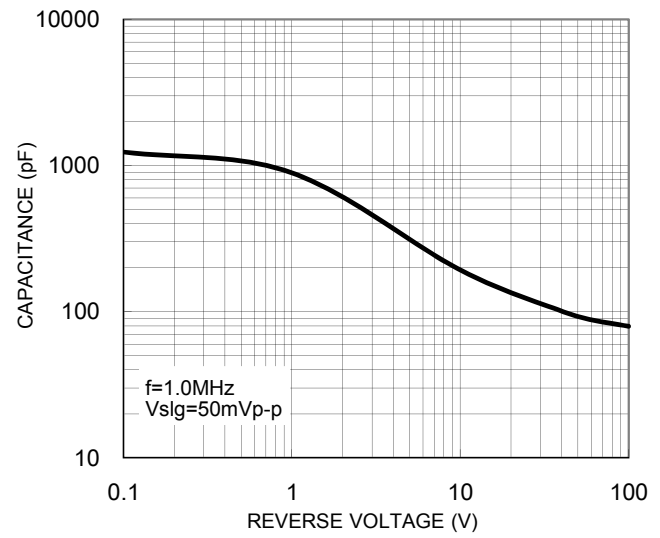
**FIG. 6 TYPICAL REVERSE CHARACTERISTICS**



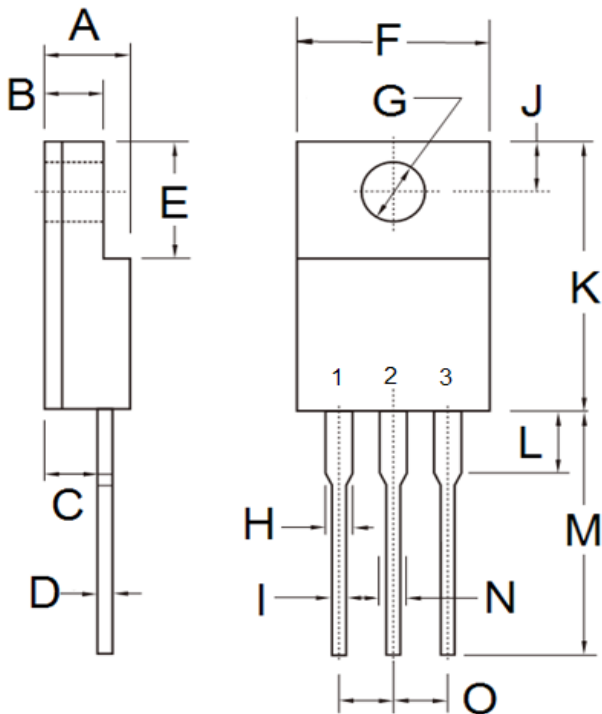
**FIG. 7 TYPICAL REVERSE CHARACTERISTICS**



**FIG. 8 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	-	1.80	-	0.071
O	2.41	2.67	0.095	0.105

**MARKING DIAGRAM**



P/N = Specific Device Code  
YWW = Date Code  
F = Factory Code