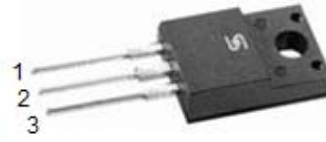
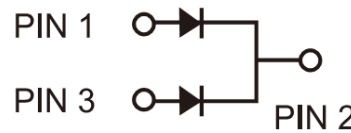


Trench MOS Barrier Schottky Rectifier

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/μs
Isolation voltage from terminal to heatsink t = 1 min				V _{AC}	1500						V
Breakdown voltage (IR =1.0mA, Ta =25°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°C	V _F	0.64	-	0.68	-	0.73	-	V	
	I _F = 10A			0.74	0.81	0.78	0.87	0.81	1.10		
	I _F = 5A	T _J = 125°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°C	I _R	-	200	-	250	-	150	μA	
		T _J = 125°C		1.5	10	5	15	3	10	mA	
Typical thermal resistance per diode				R _{θJC}	2.5		4.9		3.8		°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=300us, 1% Duty Cycle

ORDERING INFORMATION

PART NO.	PACKING CODE	PACKAGE	PACKING
TSF20HXXXC	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

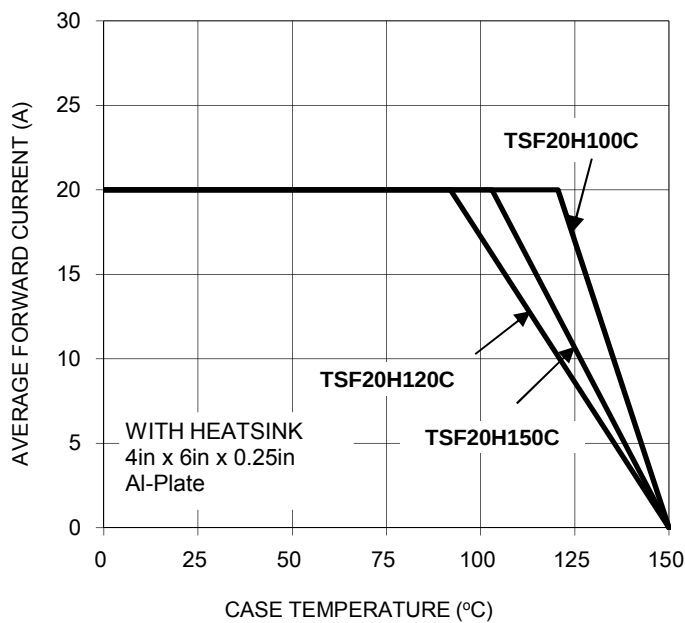


FIG. 2 TYPICAL FORWARD CHARACTERISTICS

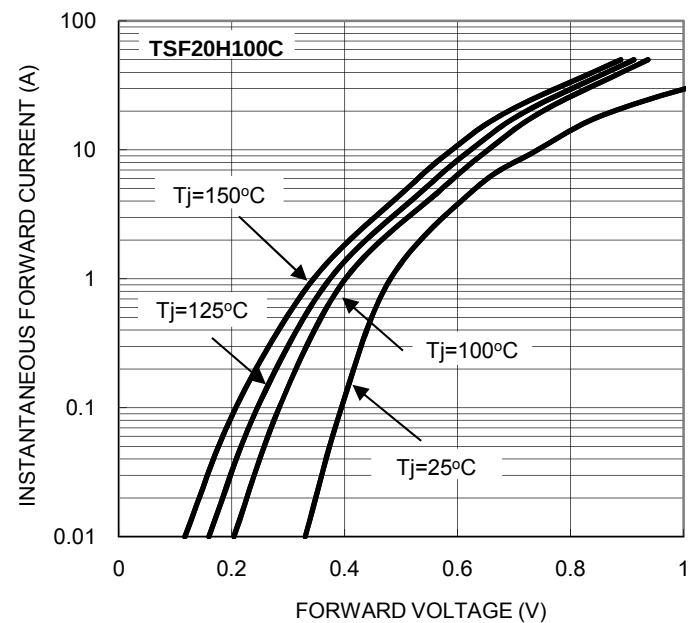


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

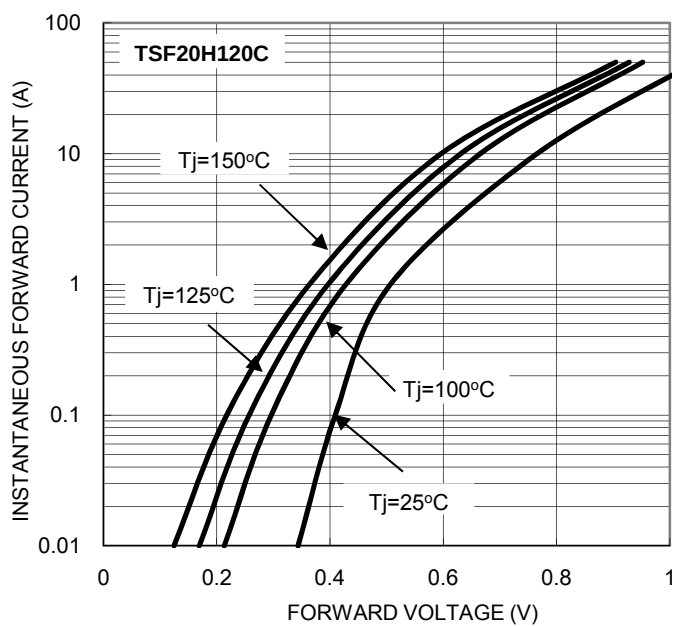


FIG. 4 TYPICAL FORWARD CHARACTERISTICS

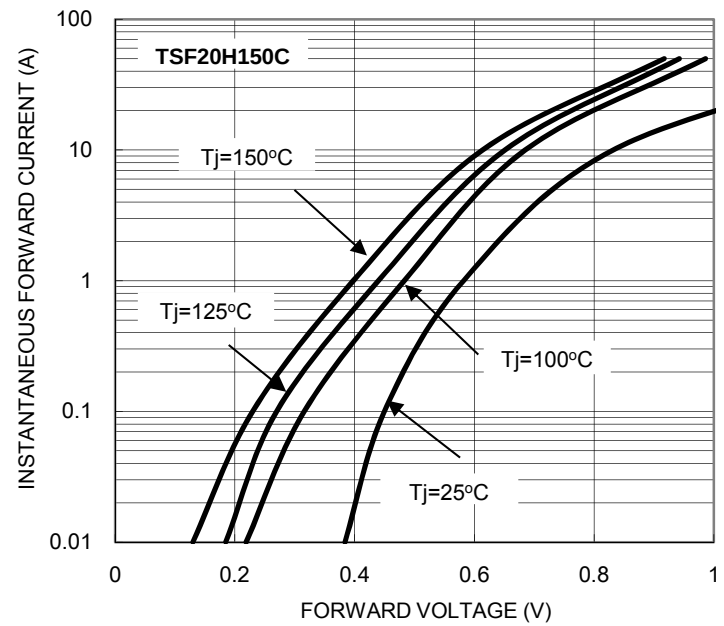


FIG. 5 TYPICAL REVERSE CHARACTERISTICS

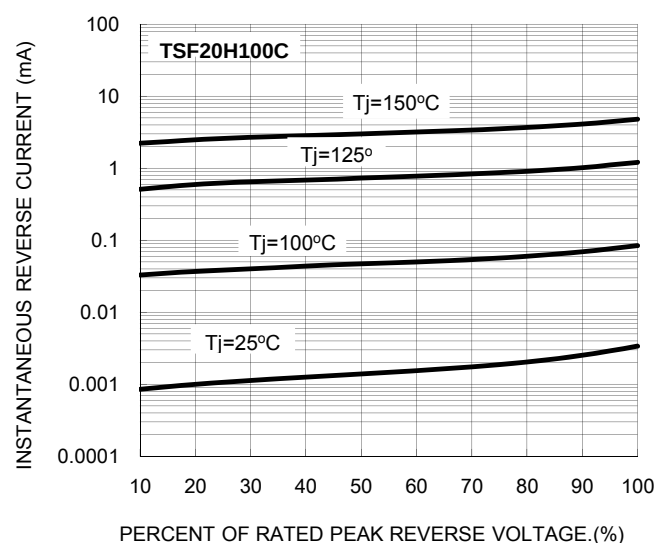


FIG. 6 TYPICAL REVERSE CHARACTERISTICS

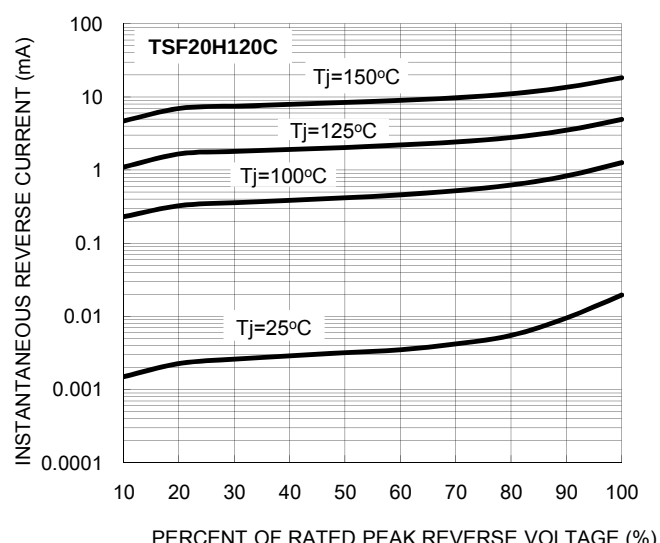


FIG. 7 TYPICAL REVERSE CHARACTERISTICS

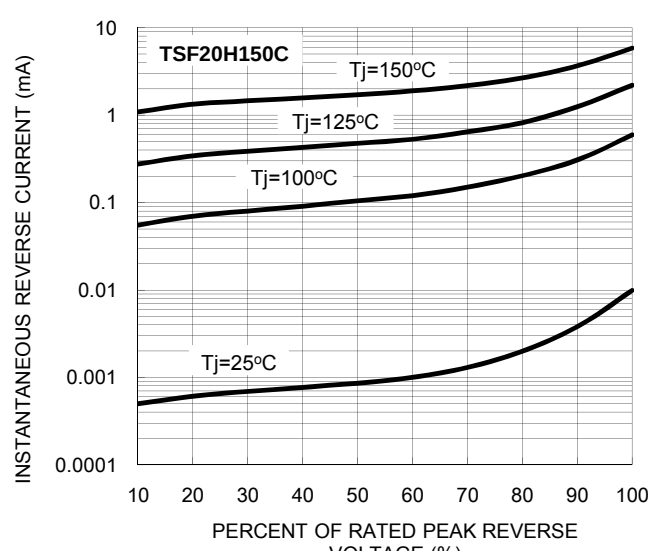
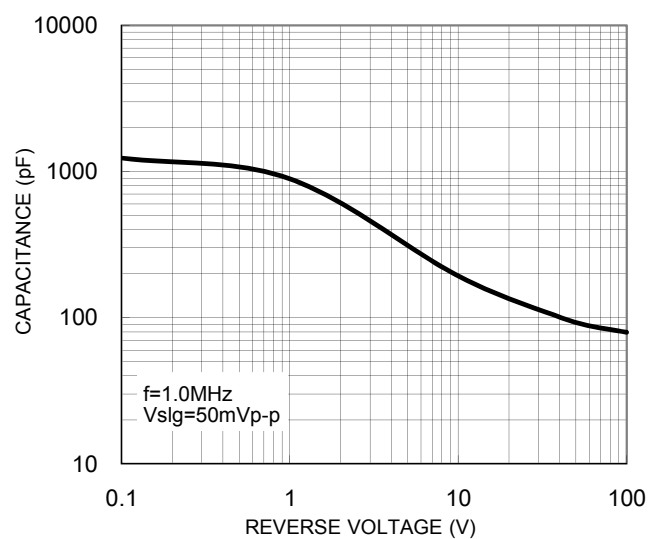
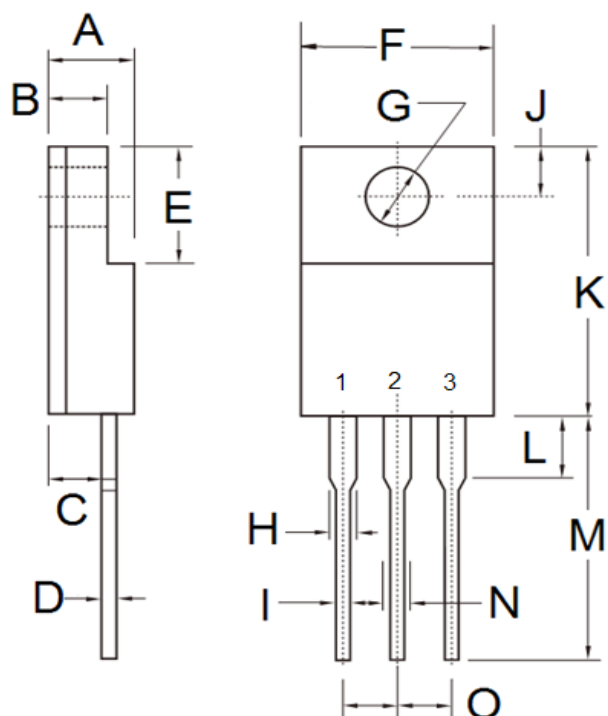


FIG. 8 TYPICAL JUNCTION CAPACITANCE



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