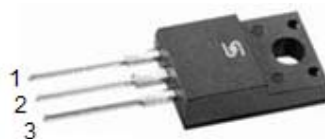


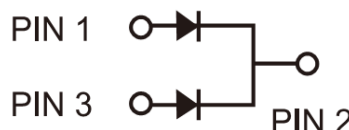
Trench Schottky Rectifier

FEATURES

- Patented Trench 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



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°C unless otherwise noted)												
PARAMETER		SYMBOL	TSF20H 100C		TSF20H 120C		TSF20H 150C		TSF20H 200C		UNIT	
Maximum repetitive peak reverse voltage		V _{RRM}	100		120		150		200		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}	120									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
			Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.		
Instantaneous forward voltage per diode (Note 1)	I _F = 5A	T _J = 25°C	V _F	0.64	-	0.68	-	0.72	-	0.77	-	V
	I _F = 10A			0.74	0.81	0.78	0.87	0.81	0.90	0.83	0.93	
	I _F = 5A	T _J = 125°C	V _F	0.55	-	0.56	-	0.58	-	0.62	-	
	I _F = 10A			0.63	0.70	0.63	0.69	0.66	0.75	0.68	0.78	
Instantaneous reverse current per diode at rated reverse voltage		T _J = 25°C	I _R	-	200	-	250	-	100	-	100	μA
		T _J = 125°C		1.5	10	5	15	3	15	-	15	mA
Typical thermal resistance per diode		R _{θJC}	4.0		4.0		4.5		4.5		°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=300μs, 1% Duty Cycle

ORDERING INFORMATION

PART NO.	PACKING CODE	PACKING CODE SUFFIX	PACKAGE	PACKING
TSF20HXXXC (Note 1)	C0	G	ITO-220AB	50 / Tube

Note 1: "xxx" defines voltage from 100V (TSF20H100C) to 200V (TSF20H200C)

EXAMPLE

PREFERRED PART NO.	PART NO.	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
TSF20H120C COG	TSF20H120C	C0	G	Green compound

RATINGS AND CHARACTERISTICS CURVES

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

FIG. 1 FORWARD CURRENT DERATING CURVE

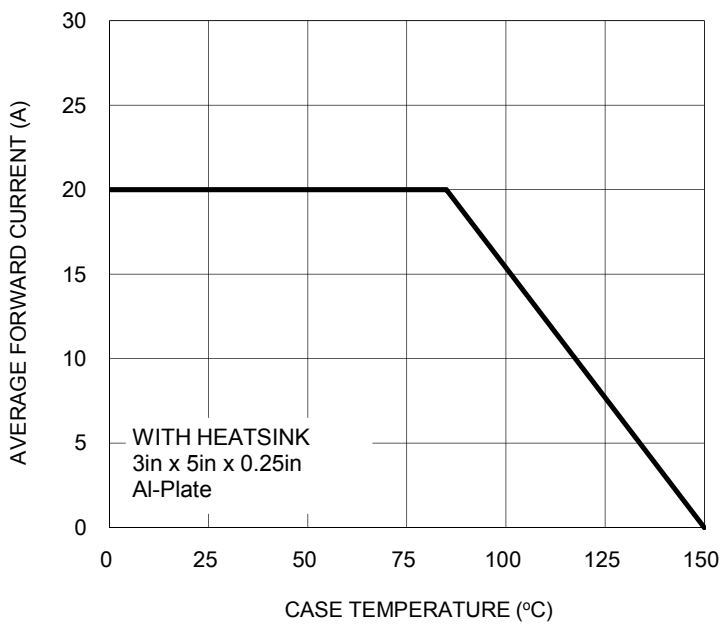


FIG. 2 TYPICAL FORWARD CHARACTERISTICS

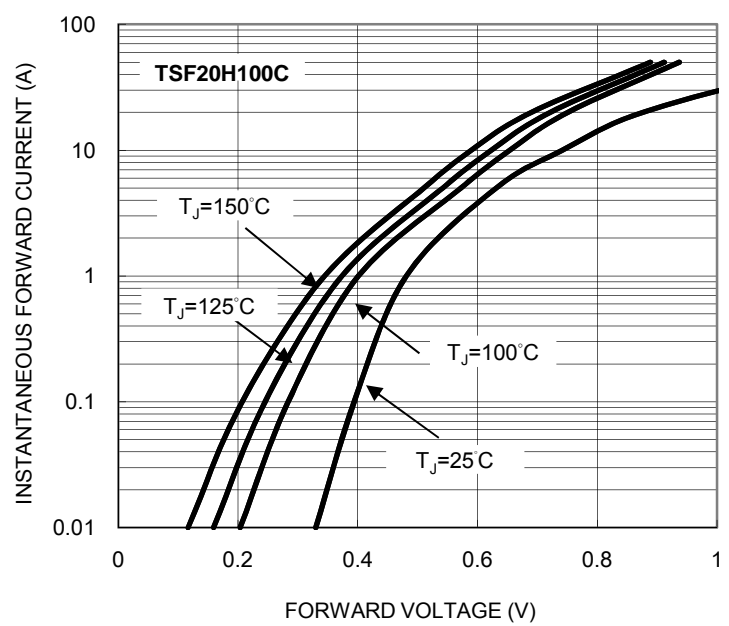


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

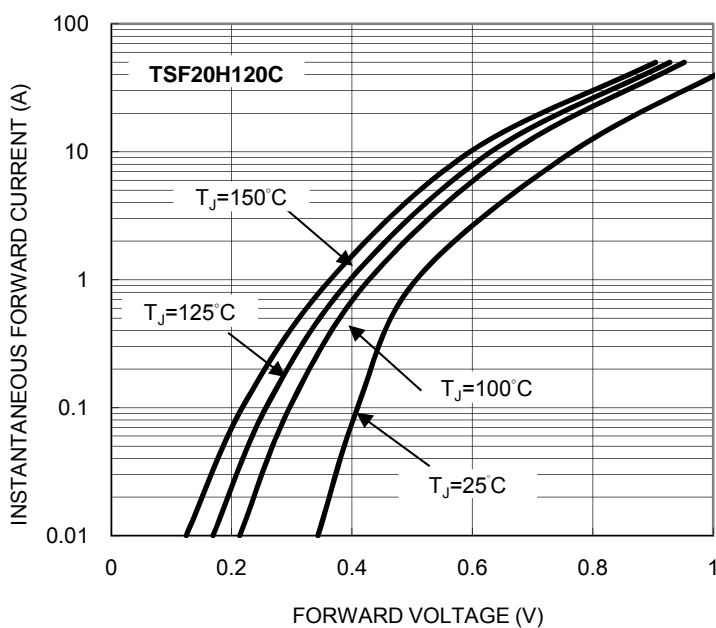


FIG. 4 TYPICAL FORWARD CHARACTERISTICS

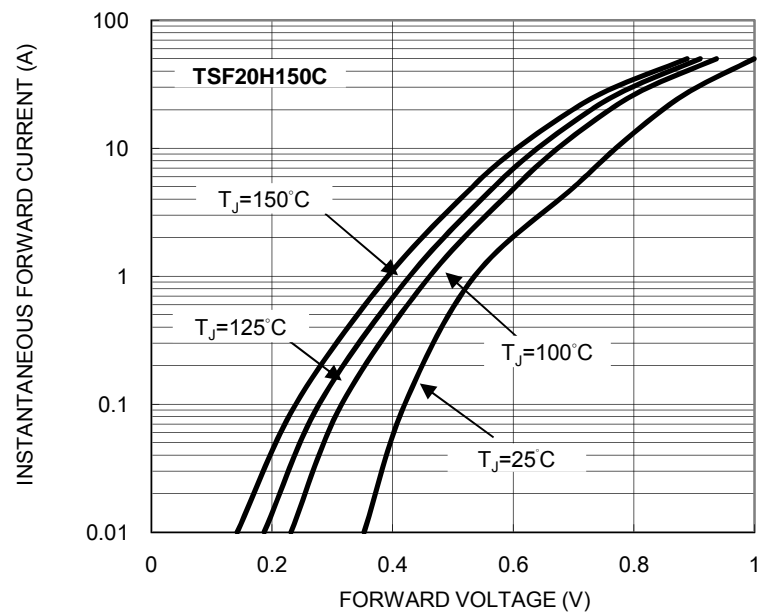


FIG. 5 TYPICAL FORWARD CHARACTERISTICS

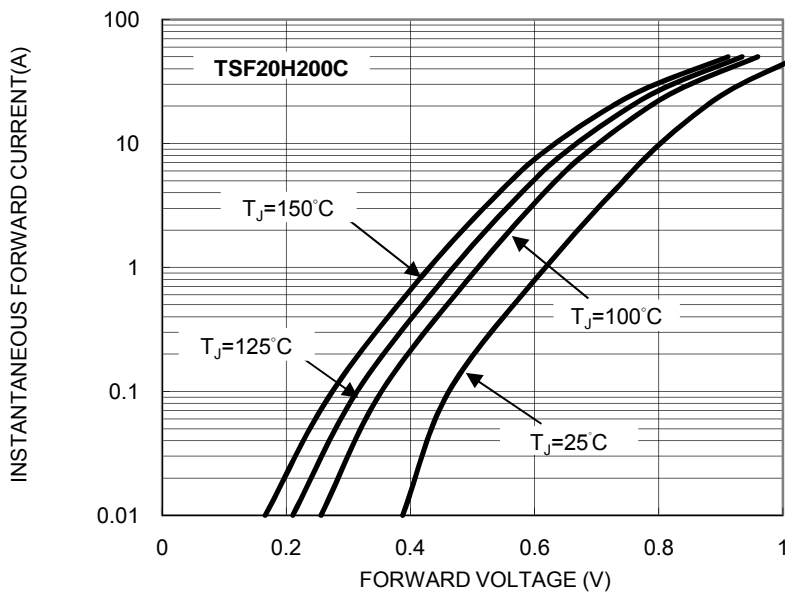


FIG. 6 TYPICAL REVERSE CHARACTERISTICS

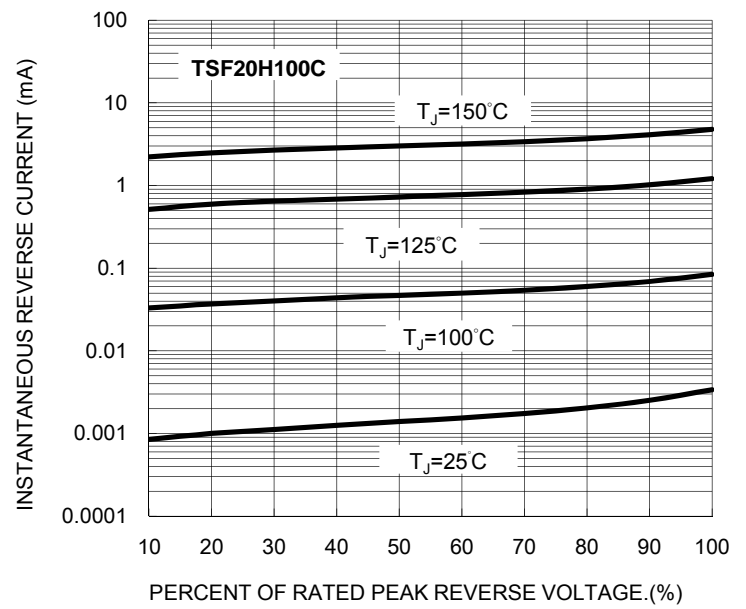


FIG. 7 TYPICAL REVERSE CHARACTERISTICS

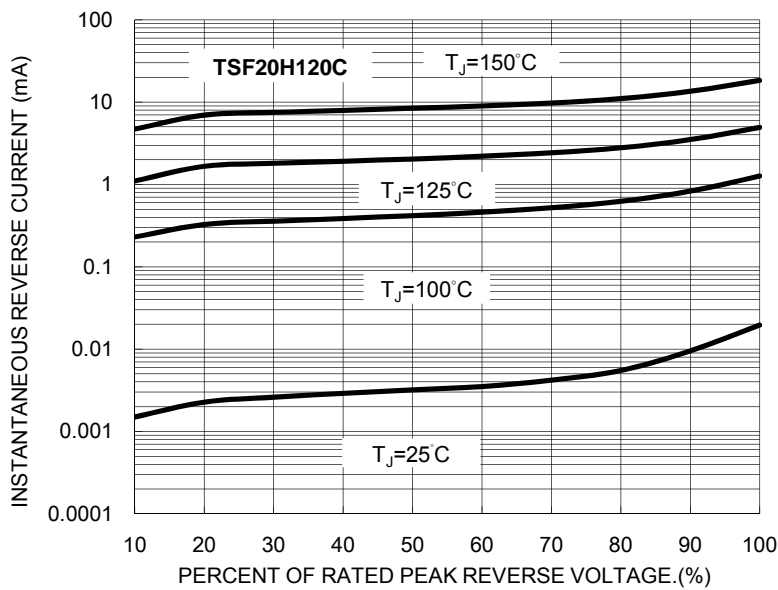


FIG. 8 TYPICAL REVERSE CHARACTERISTICS

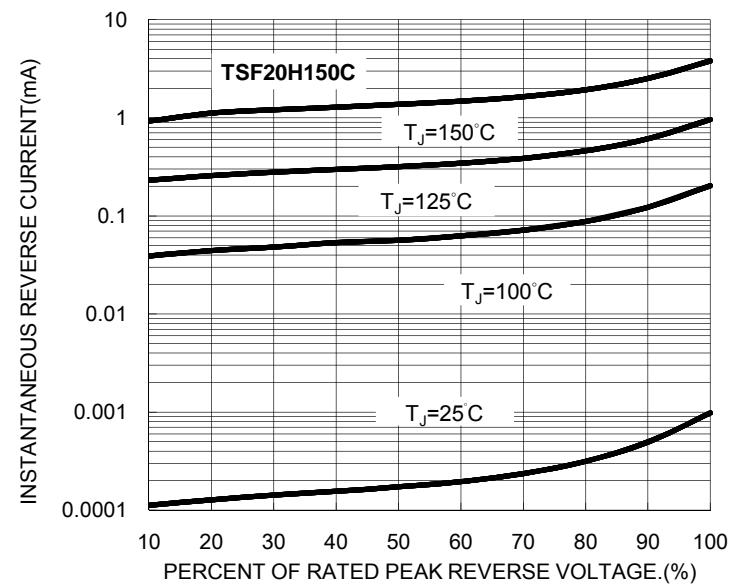


FIG. 9 TYPICAL REVERSE CHARACTERISTICS

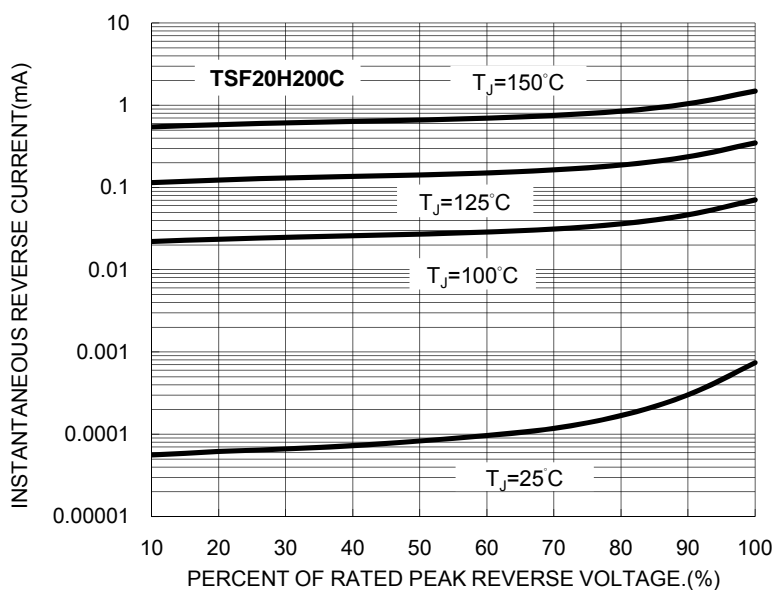
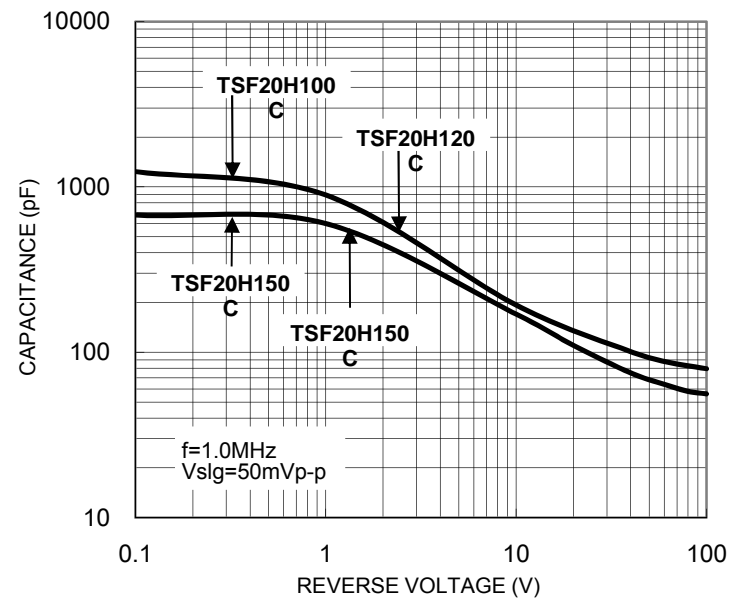
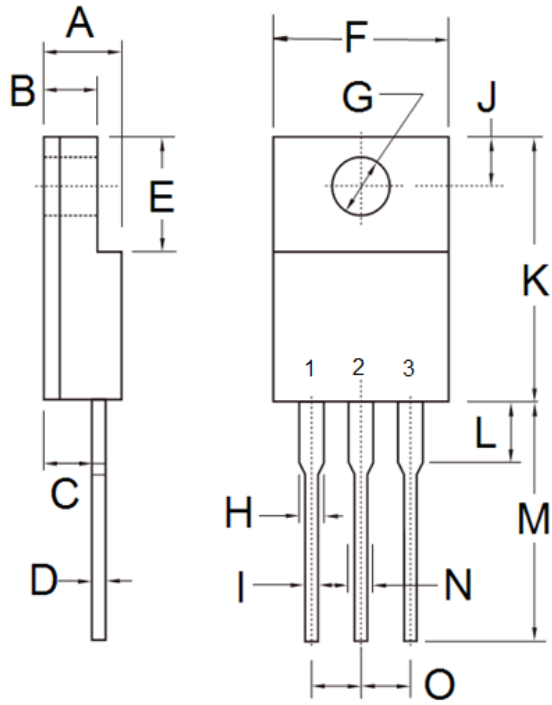


FIG. 10 TYPICAL JUNCTION CAPACITANCE



PACKAGE OUTLINE DIMENSIONS
ITO-220AB



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
- G = Green Compound
- YWW = Date Code
- F = Factory Code

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