

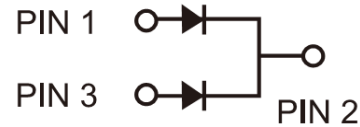
## Dual High-Voltage Trench Schottky Rectifier

### 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



**TO-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:** TO-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 1A whisker test

**Polarity:** As marked

**Mounting torque:** 0.56 Nm max.

**Weight:** 1.88 g (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> =25°C unless otherwise noted)							
PARAMETER		SYMBOL	TST20U100C			UNIT	
Maximum repetitive peak reverse voltage		V <sub>RRM</sub>	100			V	
Maximum average forward rectified current	per device	I <sub>F(AV)</sub>	20			A	
	per diode		10				
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load per diode		I <sub>FSM</sub>	150			A	
			Min.	TYP.	MAX.		
Instantaneous forward voltage per diode ( Note1 )	I <sub>F</sub> = 5A	T <sub>J</sub> = 25°C	V <sub>F</sub>	-	0.56	-	V
	I <sub>F</sub> = 10A			-	0.65	0.79	
	I <sub>F</sub> = 5A	T <sub>J</sub> = 125°C	V <sub>F</sub>	-	0.49	-	
	I <sub>F</sub> = 10A			-	0.58	0.68	
Instantaneous reverse current per diode at 100V	T <sub>J</sub> = 25°C	I <sub>R</sub>	-	-	500	μA	
	T <sub>J</sub> = 125°C		-	4	25	mA	
Typical thermal resistance per diode		R <sub>θJC</sub>	2.5			°C/W	
Operating junction temperature range		T <sub>J</sub>	- 55 to +150			°C	
Storage temperature range		T <sub>STG</sub>	- 55 to +150			°C	

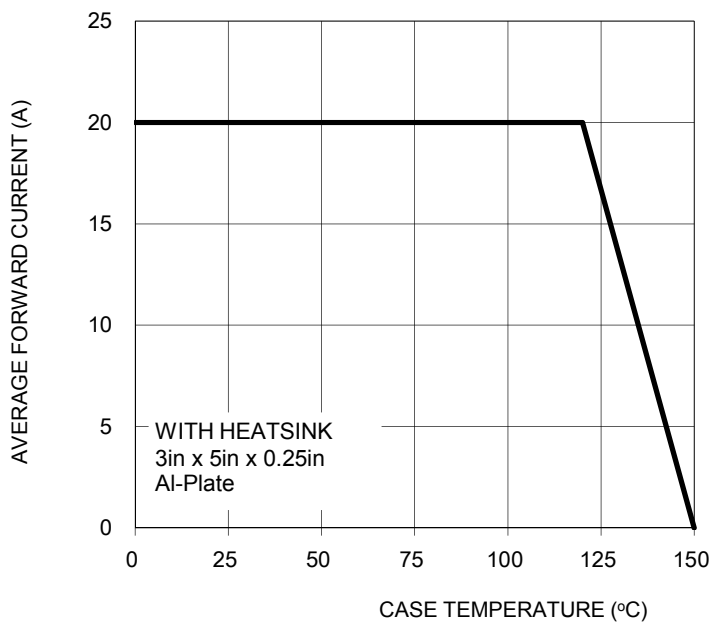
Note 1: Pulse Test with Pulse Width=300μs, 1% Duty Cycle

ORDERING INFORMATION				
PART NO.	PACKING CODE	PACKING CODE SUFFIX	PACKAGE	PACKING
TST20U100C	C0	G	TO-220AB	50 / Tube

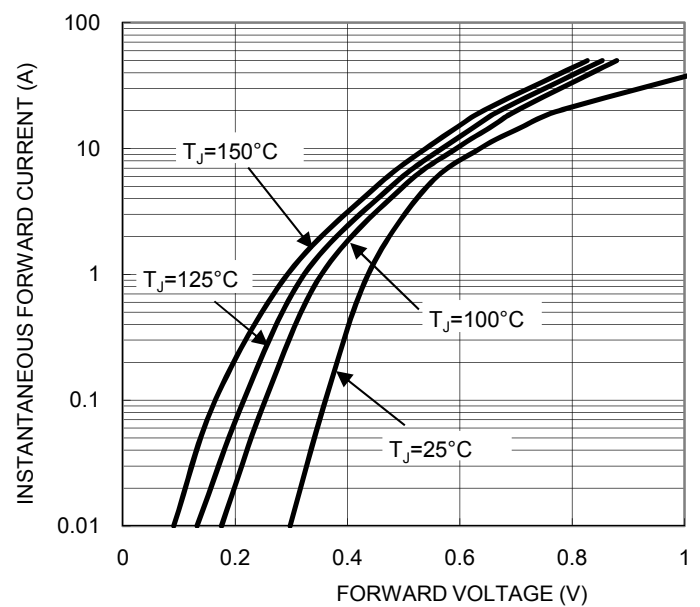
EXAMPLE				
PREFERRED PART NO.	PART NO.	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
TST20U100C C0G	TST20U100C	C0	G	Green compound

**RATINGS AND CHARACTERISTICS CURVES**  
(TA=25°C unless otherwise noted)

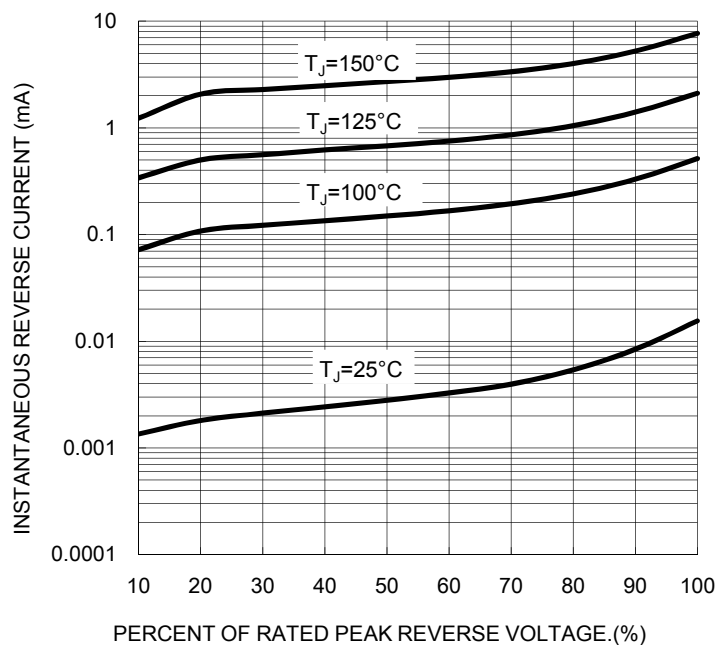
**FIG. 1 FORWARD CURRENT DERATING CURVE**



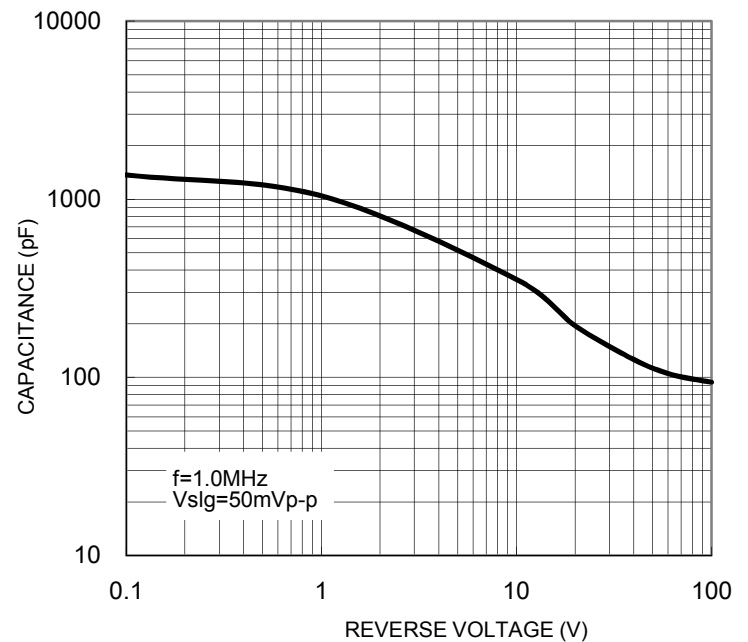
**FIG. 2 TYPICAL FORWARD CHARACTERISTICS**



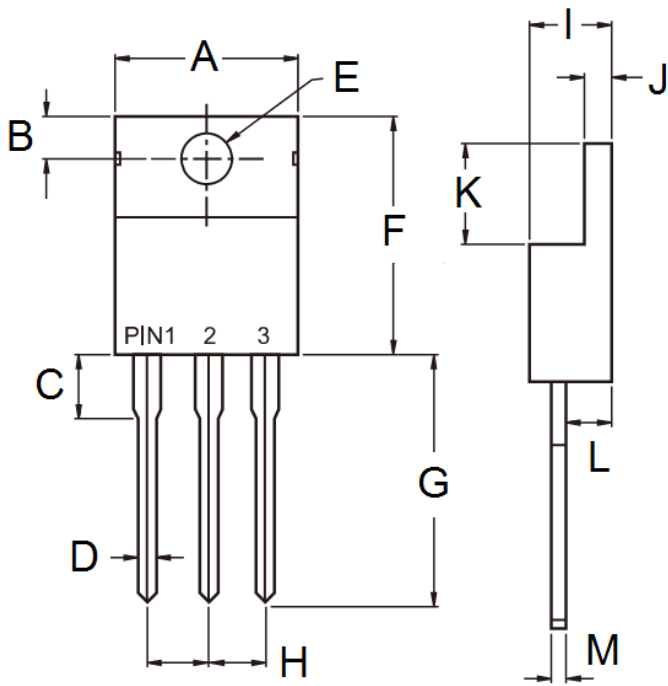
**FIG. 3 TYPICAL REVERSE CHARACTERISTICS**



**FIG. 4 TYPICAL JUNCTION CAPACITANCE**

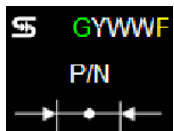


PACKAGE OUTLINE DIMENSIONS  
**TO-220AB**



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	-	10.50	-	0.413
B	2.62	3.44	0.103	0.135
C	2.80	4.20	0.110	0.165
D	0.68	0.94	0.027	0.037
E	3.54	4.00	0.139	0.157
F	14.60	16.00	0.575	0.630
G	13.19	14.79	0.519	0.582
H	2.41	2.67	0.095	0.105
I	4.42	4.76	0.174	0.187
J	1.14	1.40	0.045	0.055
K	5.84	6.86	0.230	0.270
L	2.20	2.80	0.087	0.110
M	0.35	0.64	0.014	0.025

MARKING DIAGRAM



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

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