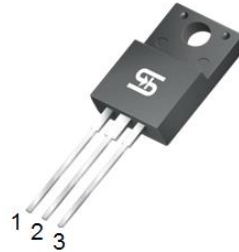


20A, 80V Dual High-Voltage Trench Schottky Rectifier

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



MECHANICAL DATA

Case: ITO-220AB

Molding compound, UL flammability classification rating 94V-0

Packing code with suffix "G" means green compound (halogen-free)

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

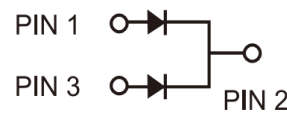
Meet JESD 201 class 1A whisker test

Polarity: As marked

Mounting torque: 0.56 Nm Max.

Weight: 1.7g (approximately)

ITO-220AB



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°C unless otherwise noted)							
PARAMETER	SYMBOL		TSF20U80C		UNIT		
Maximum repetitive peak reverse voltage	V _{RRM}		80		V		
Maximum average forward rectified current	per device		20		A		
	per diode		10				
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load per diode	I _{FSM}		100		A		
Peak repetitive reverse surge current (Note 1)	I _{RRM}		0.5		A		
Non-repetitive avalanche energy at L=60mH, per diode	E _{AS}		110		mJ		
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 (I _R = 1.0mA)	V _{BR}		MIN.	TYP.	MAX.		
			80	-	-	V	
Instantaneous forward voltage per diode (Note 2)	I _F = 5A	T _J = 25°C	V _F	-	0.52	-	V
	I _F = 10A			-	0.67	0.77	
	I _F = 5A	T _J = 125°C	V _F	-	0.48	-	
	I _F = 10A			-	0.62	0.70	
Instantaneous reverse current per diode at rated reverse voltage	T _J = 25°C		I _R	-	20	600	μA
	T _J = 125°C			-	10	20	mA
Typical thermal resistance	R _{θJC}		5		°C/W		
Operating junction temperature range	T _J		- 55 to +150		°C		
Storage temperature range	T _{STG}		- 55 to +150		°C		

Note 1: 2.0 μs Pulse width, f=1.0 kHz

Note 2: Pulse test with pulse width=300 μs, 1% duty cycle

ORDERING INFORMATION				
PART NO.	PACKING CODE	PACKING CODE SUFFIX	PACKAGE	PACKING
TSF20U80C	C0	G	ITO-220AB	50 / Tube

EXAMPLE				
EXAMPLE P/N	PART NO.	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
TSF20U80C C0G	TSF20U80C	C0	G	Green compound

RATINGS AND CHARACTERISTICS CURVES

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

FIG.1 FORWARD CURRENT DERATING CURVE

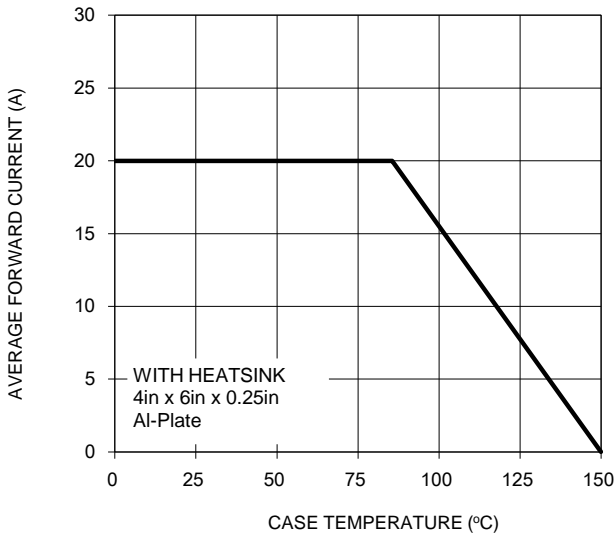


FIG. 2 TYPICAL FORWARD CHARACTERISTICS

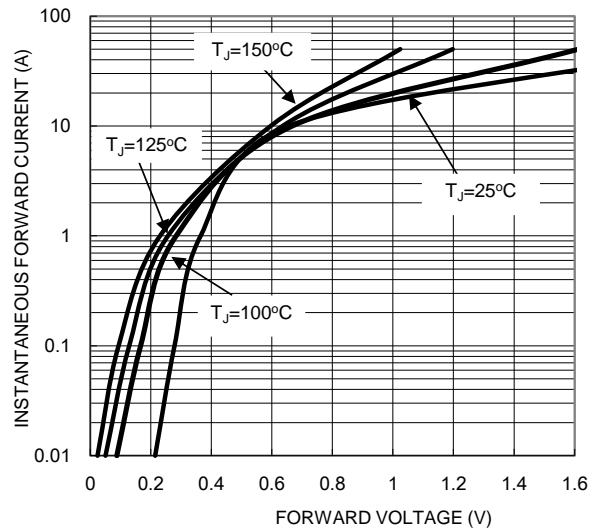


FIG. 3 TYPICAL REVERSE CHARACTERISTICS

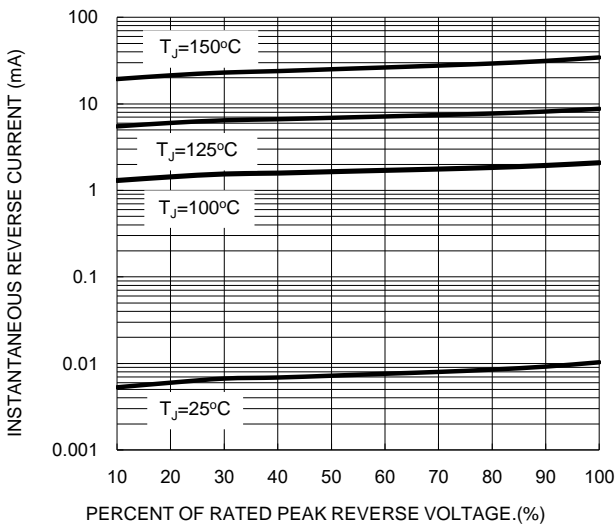
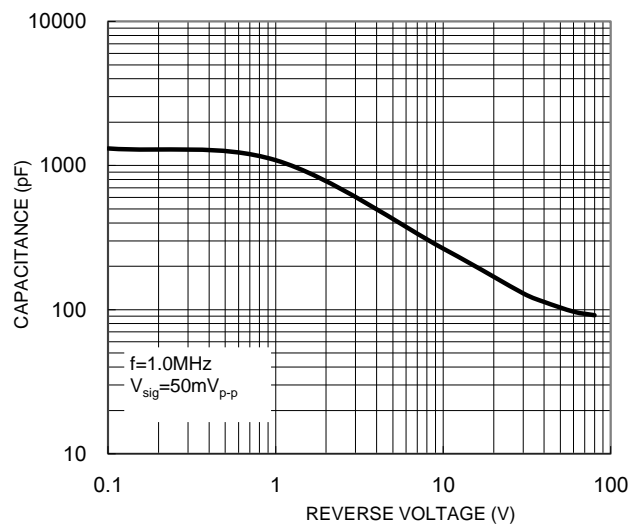
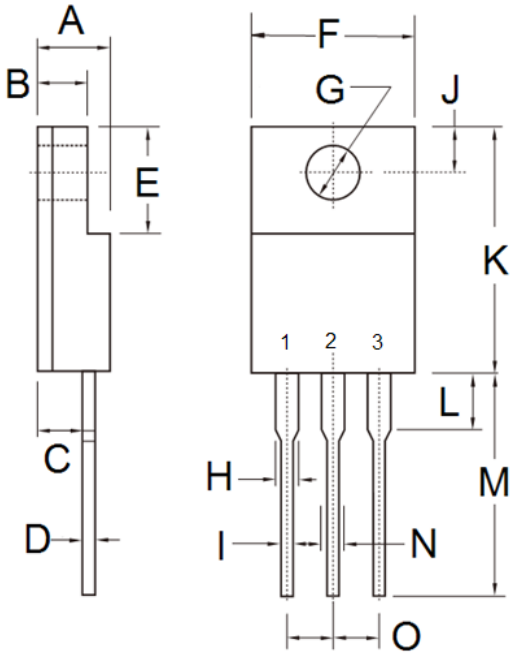


FIG. 4 TYPICAL JUNCTION CAPACITANCE

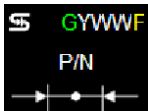


PACKAGE OUTLINE DIMENSIONS
ITO-220AB



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	-	1.45	-	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

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