

## 15A, 60V 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

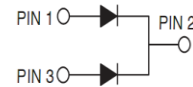


ITO-220AB



### TYPICAL APPLICATIONS

Trench Schottky barrier rectifier is designed for high frequency switched mode power supplies such as adapters, lighting, and 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 J-STD-002

Meet JESD 201 class 1A whisker test

**Polarity:** As marked

**Mounting torque:** 0.56 Nm max.

**Weight:** 1.7 g (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> = 25°C unless otherwise noted)						
PARAMETER		SYMBOL	TSF15L60CW			UNIT
Maximum repetitive peak reverse voltage		V <sub>RRM</sub>	60			V
Maximum average forward rectified current	per device	I <sub>F(AV)</sub>	15			A
	per diode		7.5			
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load per diode		I <sub>FSM</sub>	80			A
Voltage rate of change (Rated V <sub>R</sub> )		dV/dt	10000			V/μs
			MIN.	TYP.	MAX.	
Instantaneous forward voltage per diode (Note1)	I <sub>F</sub> = 7.5A	V <sub>F</sub>	-	0.61	0.70	V
	I <sub>F</sub> = 15A		-	0.79	0.88	
	I <sub>F</sub> = 7.5A		-	0.59	0.68	
	I <sub>F</sub> = 15A		-	0.74	0.83	
Maximum instantaneous reverse current per diode at rated reverse voltage	T <sub>J</sub> = 25°C	I <sub>R</sub>	100			μA
	T <sub>J</sub> = 125°C		50			mA
Typical thermal resistance per diode		R <sub>θJC</sub>	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
TSF15L60CW	C0	G	ITO-220AB	50 / Tube

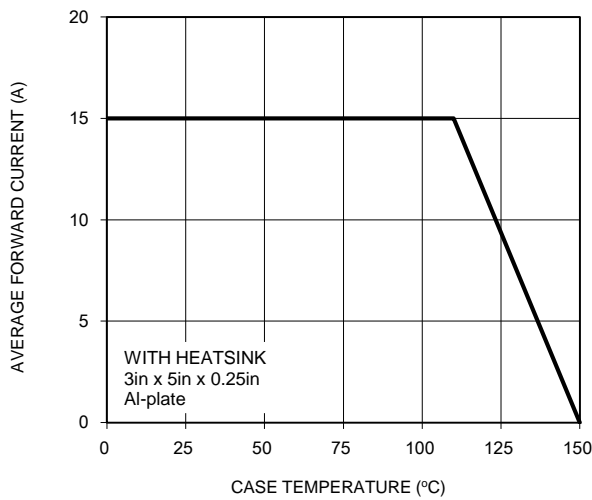
Note: Whole series with green compound

EXAMPLE PART NO.	PART NO.	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
TSF15L60CW C0G	TSF15L60CW	C0	G	Green compound

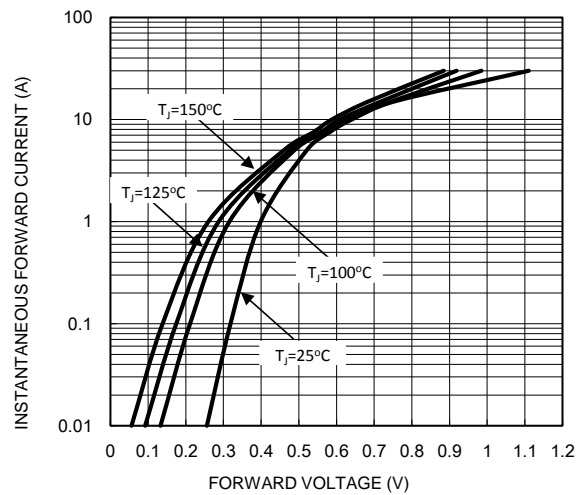
**RATINGS AND CHARACTERISTICS CURVES**

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

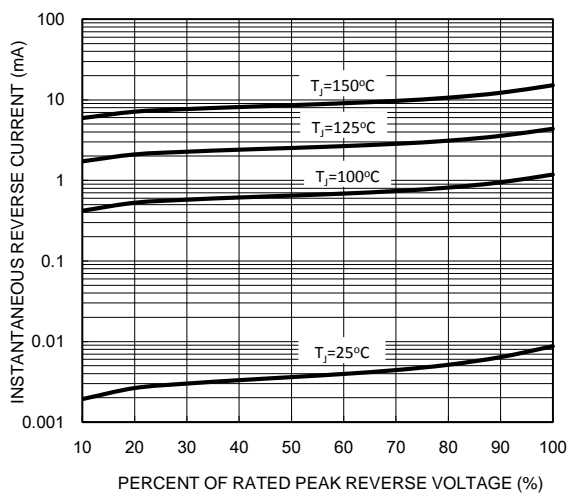
**FIG.1 FORWARD CURRENT DERATING CURVE**



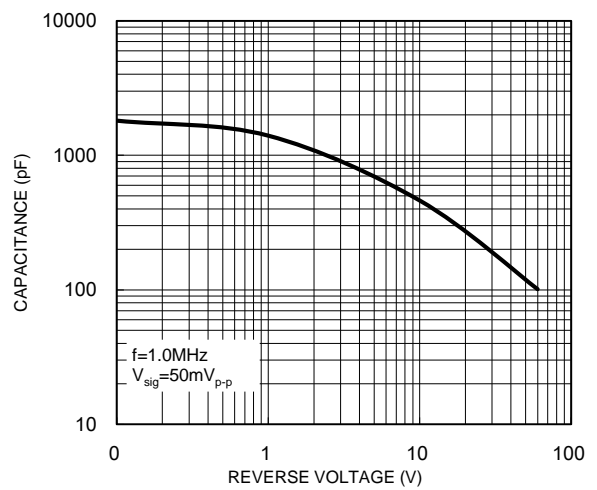
**FIG. 2 TYPICAL FORWARD CHARACTERISTICS**



**FIG. 3 TYPICAL REVERSE CHARACTERISTICS**

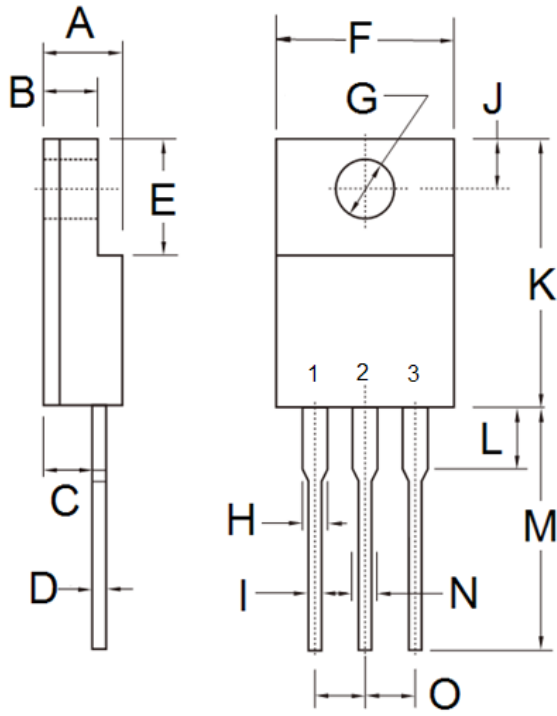


**FIG. 4 TYPICAL JUNCTION CAPACITANCE**



**OUTLINE DIMENSION**

**ITO-220AB**



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	4.30	4.70	0.17	0.19
B	2.50	3.16	0.10	0.12
C	2.30	2.96	0.09	0.12
D	0.46	0.76	0.02	0.03
E	6.30	6.90	0.25	0.27
F	9.60	10.30	0.38	0.41
G	3.00	3.40	0.12	0.13
H	0.95	1.45	0.04	0.06
I	0.50	0.90	0.02	0.04
J	2.40	3.20	0.09	0.13
K	14.80	15.50	0.58	0.61
L	-	4.10	-	0.16
M	12.60	13.80	0.50	0.54
N	-	1.80	-	0.07
O	2.41	2.67	0.09	0.11

**MARKING DIAGRAM**



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

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