

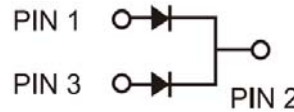
Trench MOS Barrier Schottky Rectifier

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
- Halogen-free according to IEC 61249-2-21 definition



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: 1.7g (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS(TA=25°C unless otherwise noted)							
PARAMETER	SYMBOL	TSF30U45C			UNIT		
Maximum repetitive peak reverse voltage	V_{RRM}	45			V		
Maximum average forward rectified current	per device	30			A		
	per diode	15					
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load per diode	I_{FSM}	250			A		
Voltage rate of change (rated VR)	dV/dt	10000			V/ μ s		
Isolation voltage from terminal to heatsink t = 1 min	V_{AC}	1500			V		
Breakdown voltage (IR =1.0mA)	V_{BR}	Min.	TYP.	MAX.	V		
		45	-	-			
Maximum instantaneous forward voltage per diode (Note1)	IF = 15A	$T_J = 25^\circ\text{C}$	V_F	-	0.450	0.50	V
	IF = 15A	$T_J = 125^\circ\text{C}$	V_F	-	0.415	0.45	
Maximum instantaneous reverse current per diode at rated reverse voltage	$T_J = 25^\circ\text{C}$		I_R	-	150	500	μ A
	$T_J = 125^\circ\text{C}$			-	50	100	mA
Typical thermal resistance per diode	$R_{\theta JC}$	4			$^\circ\text{C/W}$		
Operating temperature range	T_J	- 55 to +150			$^\circ\text{C}$		
Storage temperature range	T_{STG}	- 55 to +150			$^\circ\text{C}$		

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

ORDERING INFORMATION				
PART NO.	PACKING CODE	GREEN COMPOUND CODE	PACKAGE	PACKING
TSF30U45C	C0	Suffix "G"	ITO-220AB	50 / Tube

EXAMPLE				
PREFERRED P/N	PART NO.	PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION
TSF30U45C C0	TSF30U45C	C0		
TSF30U45C C0G	TSF30U45C	C0	G	Green compound

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

FIG. 1 FORWARD CURRENT DERATING CURVE

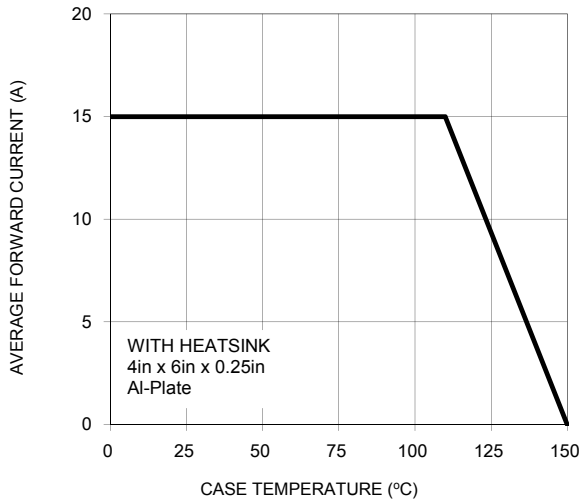


FIG. 2 TYPICAL FORWARD CHARACTERISTICS

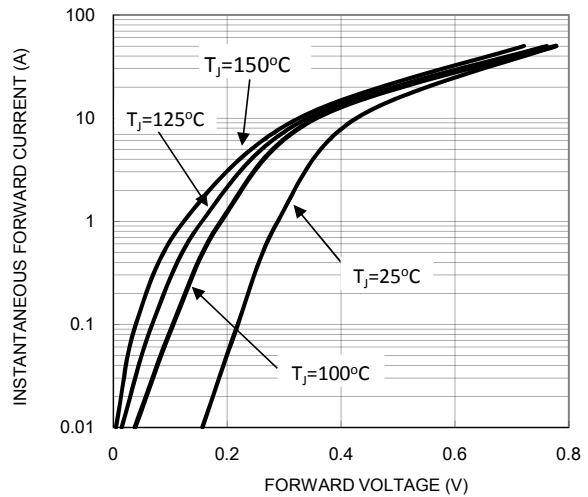


FIG. 3 TYPICAL REVERSE CHARACTERISTICS

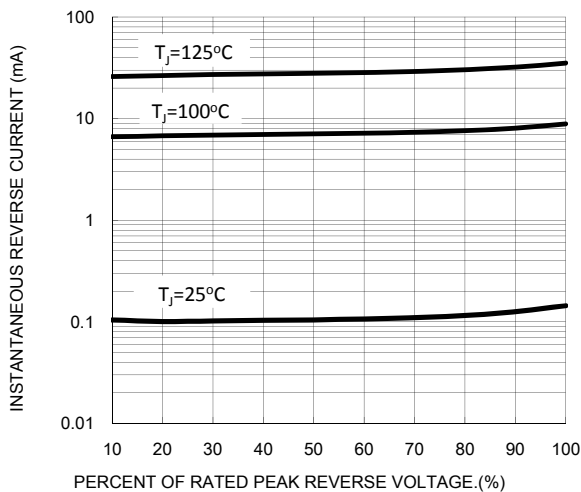
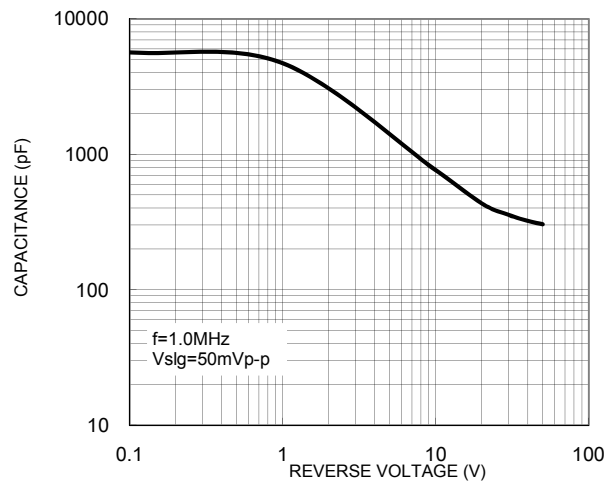
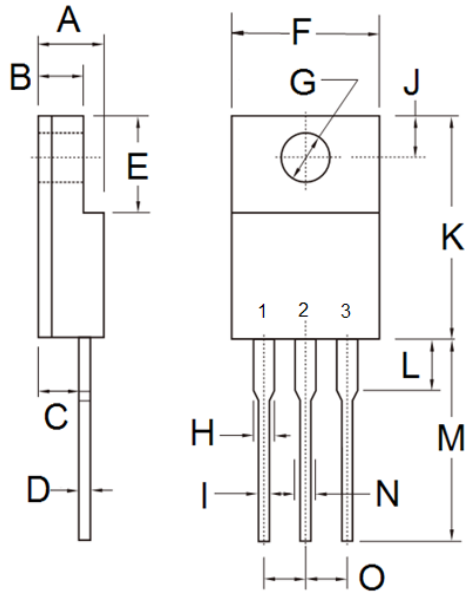


FIG. 4 TYPICAL JUNCTION CAPACITANCE



PACKAGE OUTLINE DIMENSIONS



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