

**SUPER FAST
GLASS PASSIVATED RECTIFIER**

**REVERSE VOLTAGE – 400Volts
FORWARD CURRENT – 10 Amperes**

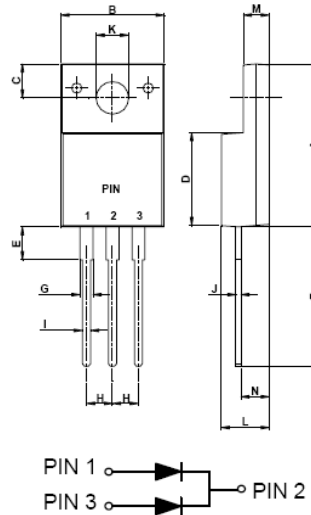
FEATURES

- Glass passivated chip
- Superfast switching time for high efficiency
- Low forward voltage drop and high current capability
- Low reverse leakage current
- High surge capacity
- Plastic package has UL flammability classification
- 94V-0

MECHANICAL DATA

- Case : ITO-220AB molded plastic
- Polarity : As marked on the body
- Weight : 0.06 ounces, 1.70 grams
- Mounting position : Any
- Max. mounting torque = 0.5 N.m (5.1 Kgf.cm)

ITO-220AB



ITO-220AB		
DIM.	MIN.	MAX.
A	15.50	16.50
B	10.0	10.40
C	3.00	3.50
D	9.00	9.30
E	2.90	3.60
F	13.46	14.22
G	1.15	1.70
H	2.40	2.70
I	0.75	1.00
J	0.45	0.70
K	3.00 \varnothing	3.30 \varnothing
L	4.36	4.77
M	2.48	2.80
N	2.50	2.80

All Dimensions in millimeter

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

CHARACTERISTICS		SYMBOL	STPF1040CT	UNIT
Device marking code		Note	STPF1040CT	---
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	400	V
Average Rectified Output Current See FIG.1		I_F	10	A
Peak Forward Surge Current 8.3ms single half sine-wave		I_{FSM}	55	A
Breakdown voltage	$I_R=50\mu A$ $T_j=25^\circ C$	V_B	400	V
Forward Voltage (1)	$I_F=5A$ $T_j=25^\circ C$ $T_j=125^\circ C$	V_F	1.3 1.2	V
	$I_F=10A$ $T_j=25^\circ C$ $T_j=125^\circ C$		1.5 1.4	
Leakage Current	$V_R=400V$ $T_j=25^\circ C$ $T_j=100^\circ C$	I_R	10 250	μA
Reverse recovery time	$I_F=0.5A$ $I_{rr}=0.25A$ $I_R=1.0A$ $T_j=25^\circ C$	t_{rr}	35	ns
Junction Capacitance	$V_R=4V$ Freq.=1MHz $T_j=25^\circ C$	C_j	TYP. 30	pF
Typical thermal resistance_Junction to Case (2)		$R_{\theta JC}$	4.5	$^\circ C/W$
Operating and Storage junction temperature range		T_J, T_{STG}	-55 to +150	$^\circ C$

Note :

- (1) 300us Pulse Width, 2% Duty Cycle.
- (2) Thermal Resistance test performed in accordance with JESD-51. $R_{\theta JL}$ is measured at the PIN 2, $R_{\theta JC}$ is measured at the top centre of body.

REV. 2, Sep-2010, KTGC36

FIG.1- FORWARD CURRENT DERATING CURVE

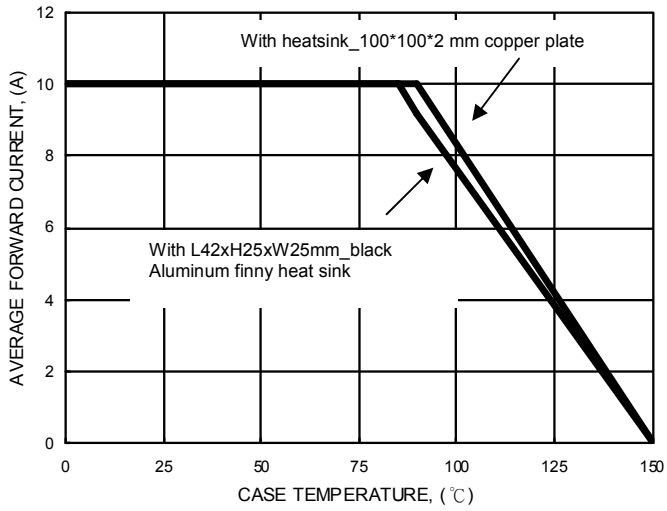


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

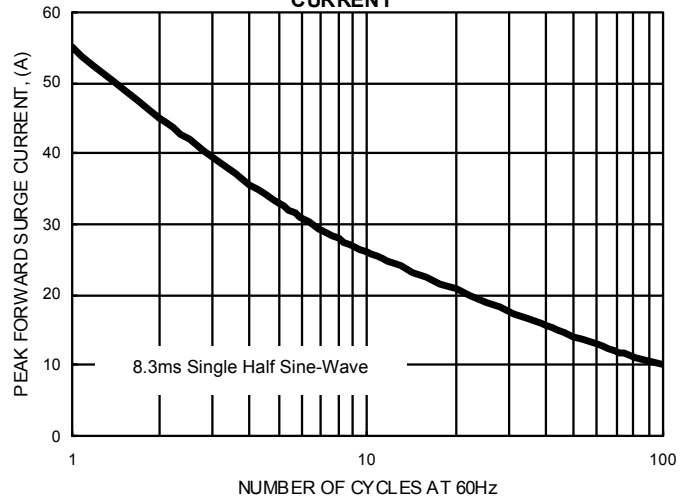


FIG.3- TYPICAL FORWARD CHARACTERISTICS

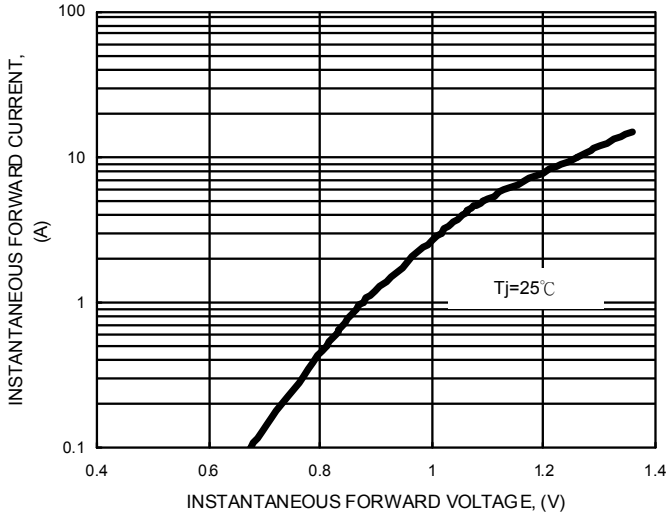


FIG.4- TYPICAL JUNCTION CAPACITANCE

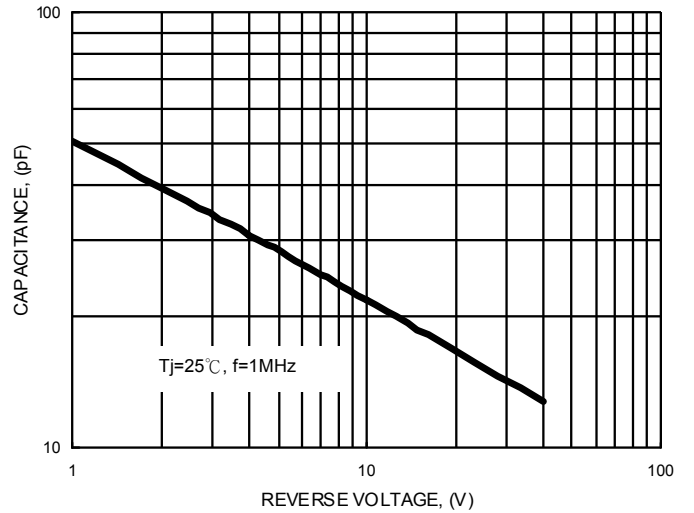
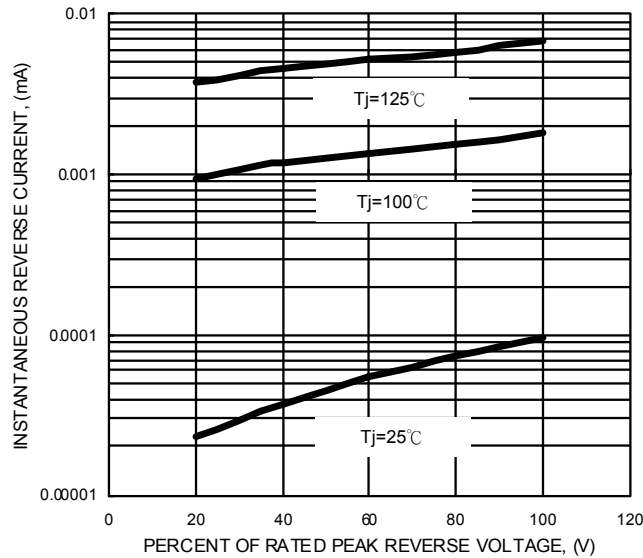


FIG.5- TYPICAL REVERSE CHARACTERISTICS



Important Notice and Disclaimer

LSC reserves the right to make changes to this document and its products and specifications at any time without notice. Customers should obtain and confirm the latest product information and specifications before final design, purchase or use.

LSC makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does LSC assume any liability for application assistance or customer product design. LSC does not warrant or accept any liability with products which are purchased or used for any unintended or unauthorized application.

No license is granted by implication or otherwise under any intellectual property rights of LSC.

LSC products are not authorized for use as critical components in life support devices or systems without express written approval of LSC.