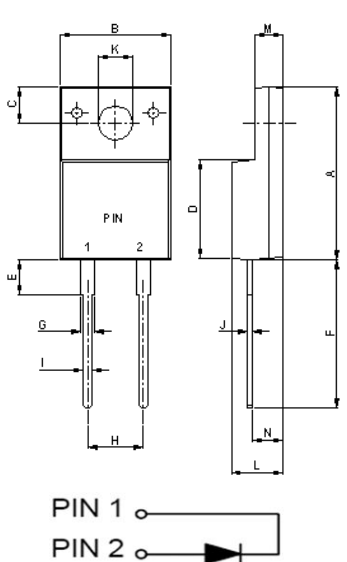


<b>HYPER-FAST GLASS PASSIVATED RECTIFIER</b>	<b>REVERSE VOLTAGE – 600Volts FORWARD CURRENT – 15 Ampere</b>
--	---

<p><b>FEATURES</b></p> <ul style="list-style-type: none"> <li>• Specially suited for critical mode Power Factor Corrections.</li> <li>• High reliability and efficiency</li> </ul> <p><b>MECHANICAL DATA</b></p> <ul style="list-style-type: none"> <li>• Case: ITO-220AC</li> <li>• Case Material: Plastic material, UL flammability classification 94V-0</li> <li>• Moisture Sensitivity: Level 1 per J-STD-020C</li> <li>• Terminals: Lead Free Plating</li> <li>• Polarity indicator: As marked on the body</li> <li>• Weight: 0.06 ounces, 1.70 grams</li> <li>• Component in accordance to RoHs 2002/95/EC</li> <li>• Maximum mounting torque = 0.5 N.m (5.1 Kgf.cm)</li> </ul>	<p style="text-align: center;"><b>ITO-220AC</b></p>  <table border="1" style="float: right; margin-top: 10px;"> <thead> <tr> <th colspan="3">ITO-220AB</th> </tr> <tr> <th>DIM.</th> <th>MIN.</th> <th>MAX.</th> </tr> </thead> <tbody> <tr><td>A</td><td>15.50</td><td>16.20</td></tr> <tr><td>B</td><td>10.0</td><td>10.40</td></tr> <tr><td>C</td><td>3.00</td><td>3.50</td></tr> <tr><td>D</td><td>9.00</td><td>9.30</td></tr> <tr><td>E</td><td>2.90</td><td>3.80</td></tr> <tr><td>F</td><td>13.46</td><td>14.22</td></tr> <tr><td>G</td><td>1.15</td><td>1.70</td></tr> <tr><td>H</td><td>4.83</td><td>5.33</td></tr> <tr><td>I</td><td>0.75</td><td>1.00</td></tr> <tr><td>J</td><td>0.45</td><td>0.70</td></tr> <tr><td>K</td><td>3.00 <math>\varnothing</math></td><td>3.30 <math>\varnothing</math></td></tr> <tr><td>L</td><td>4.36</td><td>4.77</td></tr> <tr><td>M</td><td>2.48</td><td>2.80</td></tr> <tr><td>N</td><td>2.50</td><td>2.80</td></tr> </tbody> </table> <p style="text-align: center; font-size: small;">All Dimensions in millimeter</p>	ITO-220AB			DIM.	MIN.	MAX.	A	15.50	16.20	B	10.0	10.40	C	3.00	3.50	D	9.00	9.30	E	2.90	3.80	F	13.46	14.22	G	1.15	1.70	H	4.83	5.33	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
ITO-220AB																																																	
DIM.	MIN.	MAX.																																															
A	15.50	16.20																																															
B	10.0	10.40																																															
C	3.00	3.50																																															
D	9.00	9.30																																															
E	2.90	3.80																																															
F	13.46	14.22																																															
G	1.15	1.70																																															
H	4.83	5.33																																															
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																																															

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**  
Ratings at 25°C ambient temperature unless otherwise specified.

PARAMETER	SYMBOL	LTTH1506DF	UNIT
Device marking code	Note	LTTH1506DF	---
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	600	V
Average Rectified Output Current @ $\delta=0.5$ See Fig.1	$I_F$	15	A
Peak Forward Surge Current 8.3ms single half sine-wave	$I_{FSM}$	120	A
Storage temperature range	$T_{STG}$	-55 to +150	°C
Operating junction temperature range	$T_J$	-55 to +150	°C

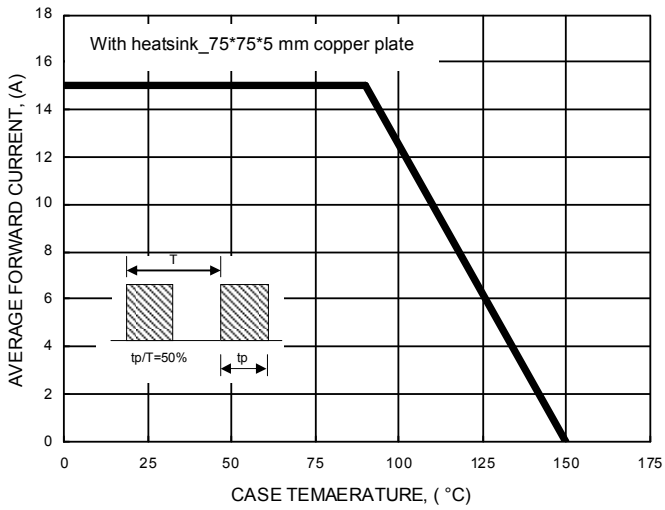
PARAMETER	TEST CONDITIONS	SYMBOL	Min.	Typ.	Max.	UNIT
Breakdown voltage	$I_R=60\mu A$ $T_J=25^\circ C$	$V_B$	600	---	---	V
Forward Voltage (1)	$I_F=15A$ $T_J=25^\circ C$ $T_J=125^\circ C$	$V_F$	---	2.25 1.60	2.90 1.80	V
Leakage Current	$V_R=600V$ $T_J=25^\circ C$ $T_J=125^\circ C$ $T_J=150^\circ C$	$I_R$	---	0.5 70 300	60 800 2400	$\mu A$
Reverse recovery time	$I_F=0.5A$ $I_{rr}=0.25A$ $I_R=1.0A$ $T_J=25^\circ C$	$t_{rr}$	---	26	30	ns

THERMAL CHARACTERISTIC	SYMBOL	Typical	UNIT
Typical thermal resistance_Junction to Case	$R_{\theta JC}$	3.0	°C/W
Typical thermal resistance_Junction to Lead	$R_{\theta JL}$	3.0	°C/W

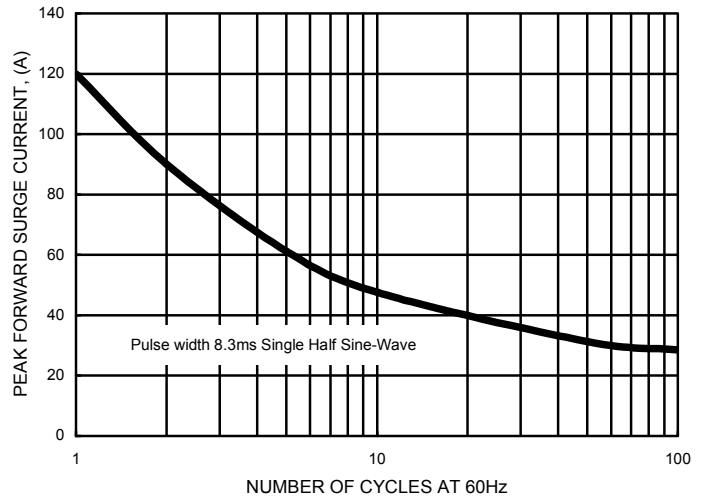
Note : **REV. 6, Sep-2012, KTGC33**

- (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.

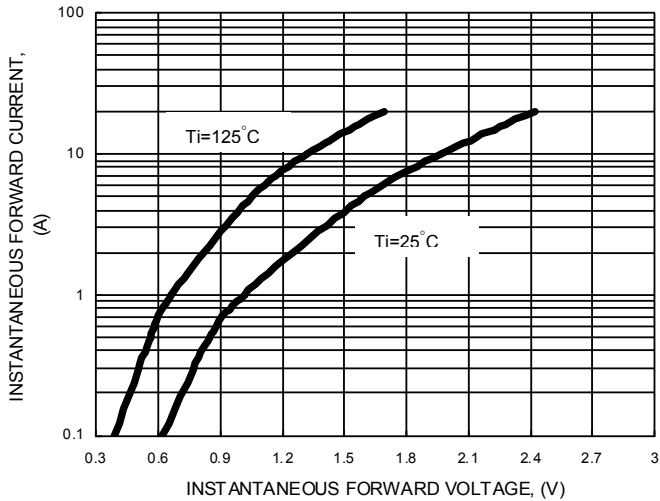
**FIG.1- FORWARD CURRENT DERATING CURVE**



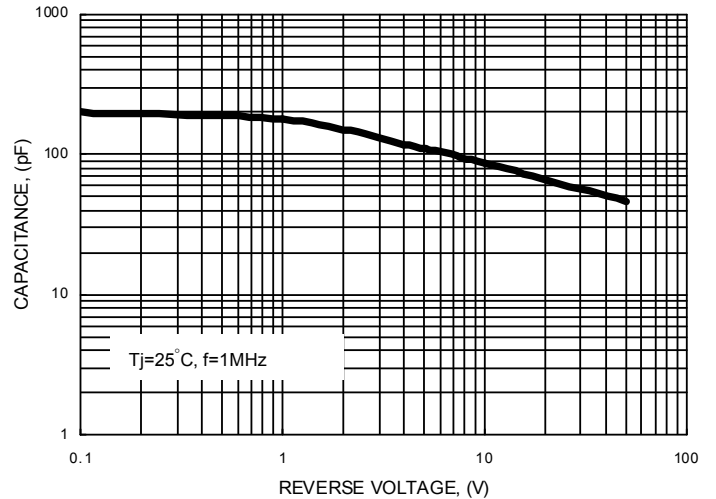
**FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT**



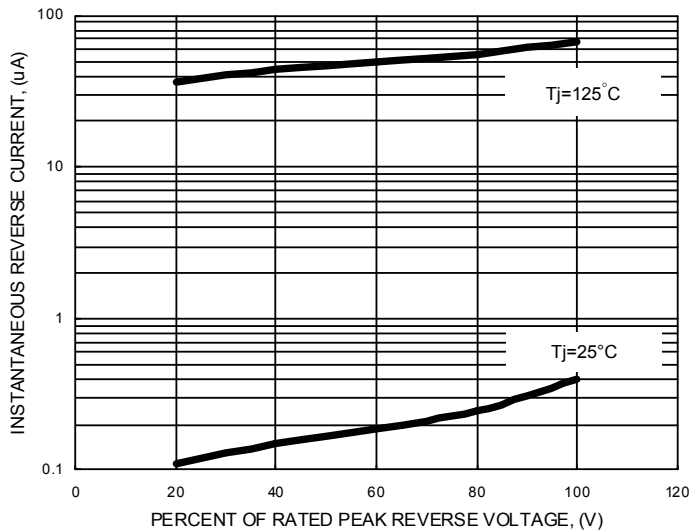
**FIG.3- TYPICAL FORWARD CHARACTERISTICS**



**FIG.4- TYPICAL JUNCTION CAPACITANCE**



**FIG.5- TYPICAL REVERSE CHARACTERISTICS**



**FIG.6- Conduction losses vs. average current**

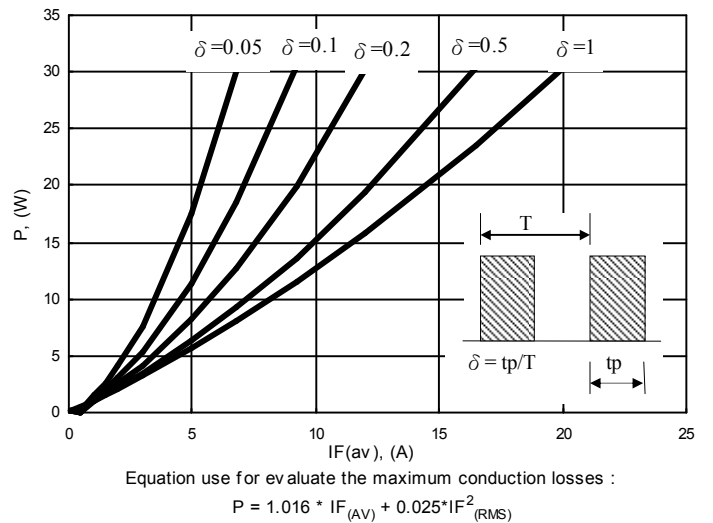
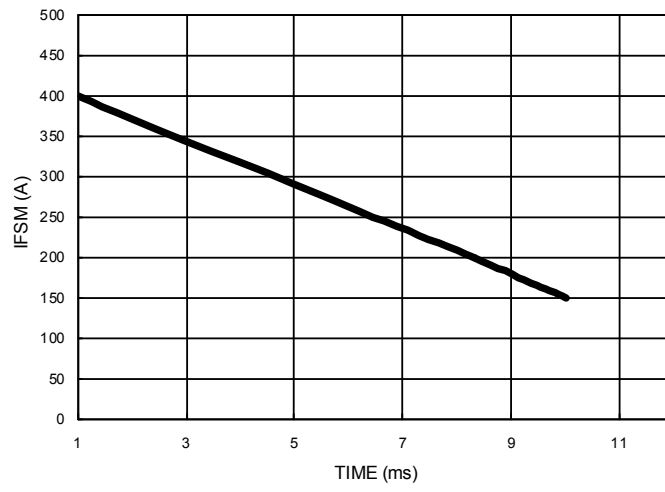


FIG.6- IFSM CAPABILITY CURVE



## **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.