

LTTH806EFW

HYPER-FAST GLASS PASSIVATED RECTIFIER

REVERSE VOLTAGE – 600 Volts
FORWARD CURRENT – 8.0 Amperes

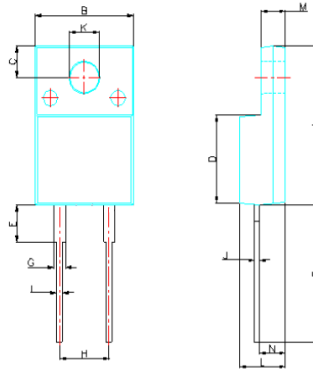
FEATURES

- Soft, Hyper fast switching capability
- Specially suited for Continuous mode Power Factor Corrections
- High reliability and efficiency
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**

MECHANICAL DATA

- Package: JEDEC ITO-220AC
- Package Material: "Green" Molding compound, UL flammability classification 94V-0, "Halogen-free"
- Lead free Finish, RoHS compliant
- Polarity indicator: As marked on the body
- Marking code : LTTH806EFW
- Weight: 1.497 grams (Approximate)
- Maximum mounting torque = 0.5 N.m(5.1 Kgf.cm)

ITO-220AC(W/B)



ITO-220AC(W/B)		
DIM	MIN	MAX
A	14.95	15.95
B	10.00	10.40
C	2.76	3.36
D	8.50	8.80
E	3.30	3.90
F	13.00	13.70
G	1.15	1.70
H	4.95	5.25
I	0.50	0.80
J	0.45	0.70
K	3.00 Ø	3.30 Ø
L	4.46	4.87
M	2.48	2.80
N	2.50	2.80
All dimension in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

ABSOLUTE RATINGS

PARAMETER	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	600	V
Maximum Average rectified forward current (Note 4)	I_F	8.0	A
Peak forward surge single half sine-wave	I_{FSM}	250 125	A
Non- repetitive avalanche energy	E_{AS}	21.7	mJ
Operating and Storage temperature range	T_J, T_{STG}	-55 ~ +175	°C

STATIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITION	SYMBOL	TYP	MAX	UNIT
Forward voltage(Note 5)	$I_F=8.0A$ $T_J = 25^\circ C$ $T_J = 125^\circ C$	V_F	-- 1.4	2.9 1.8	V
Reverse leakage current	$V_R=600V$ $T_J = 25^\circ C$ $T_J = 125^\circ C$	I_R	-- 35	30 400	uA

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	TYP	UNIT
Typical thermal resistance(Note 6)	R_{thJA}	16	°C/W
	R_{thJL}	7	
	R_{thJC}	5	

DYNAMIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITION	SYMBOL	TYP	MAX	UNIT
Reverse recovery time	$I_F=0.5A, I_{rr}=0.25A, I_R=1.0A$	T_{rr}	--	25	nS
	$I_F=1A, di_F/dt=-50A/\mu s, V_R=30V$		--	45	
Reverse recovery current	$I_F=8A, di_F/dt=-200A/\mu s,$	I_{RM}	5.5	7.2	A
Reverse recovery charges	$V_R=400V$	Q_{rr}	150	--	nC

Note:

REV. 3, Nov-2021, KTGC58

1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
2. See <https://www.diodes.com/quality/lead-free/> for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
4. See FIG.1.
5. 300us pulse width, 2% duty cycle.
6. Thermal resistance test is performed in accordance with JESD-51. R_{thJL} is measured at the PIN2, R_{thJC} is measured at top centre of body.

FIG.1- FORWARD CURRENT DERATING CURVE

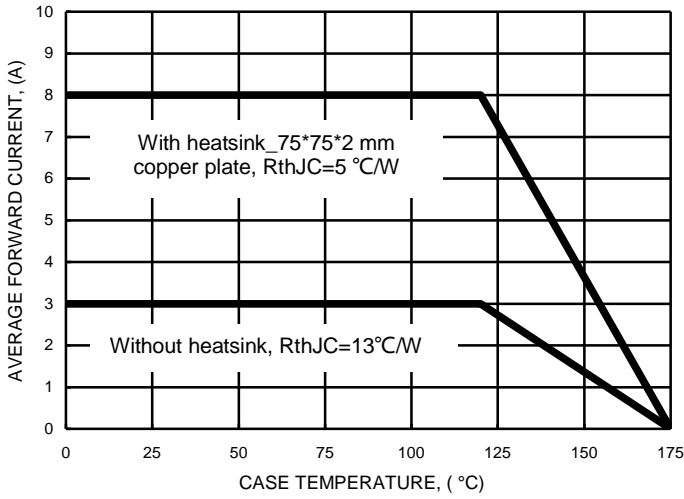


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

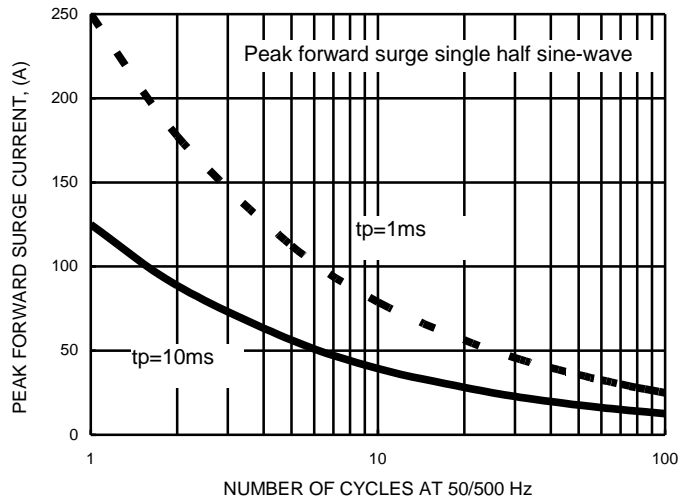


FIG.3- TYPICAL FORWARD CHARACTERISTICS

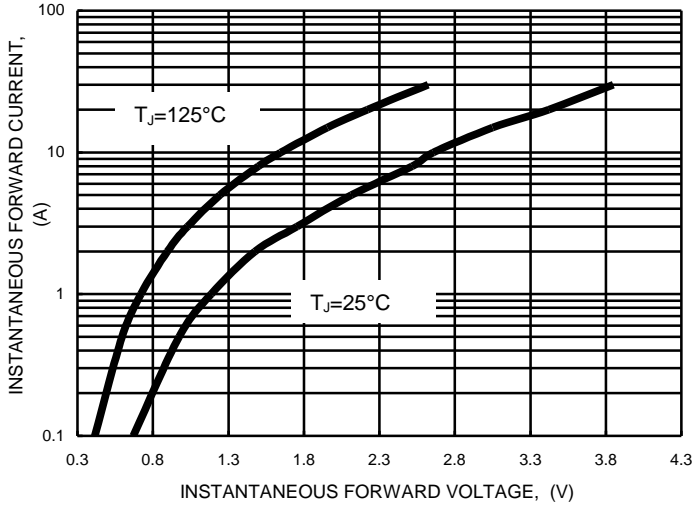


FIG.4- TYPICAL JUNCTION CAPACITANCE

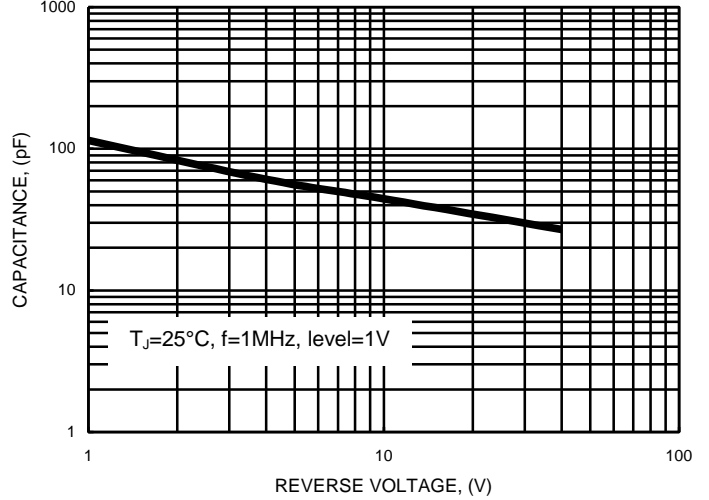
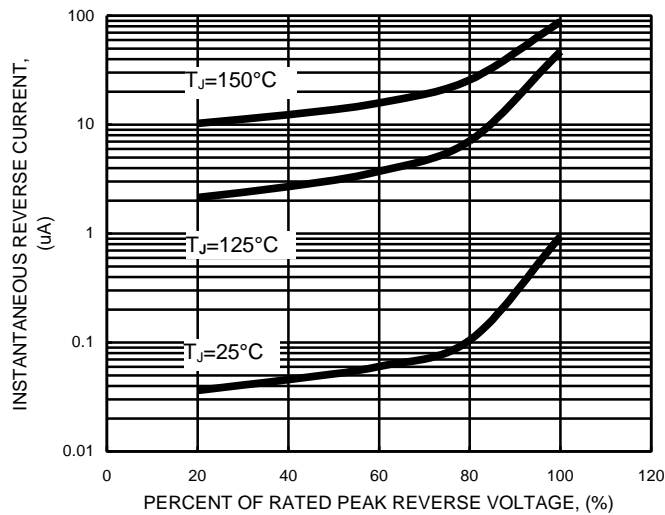


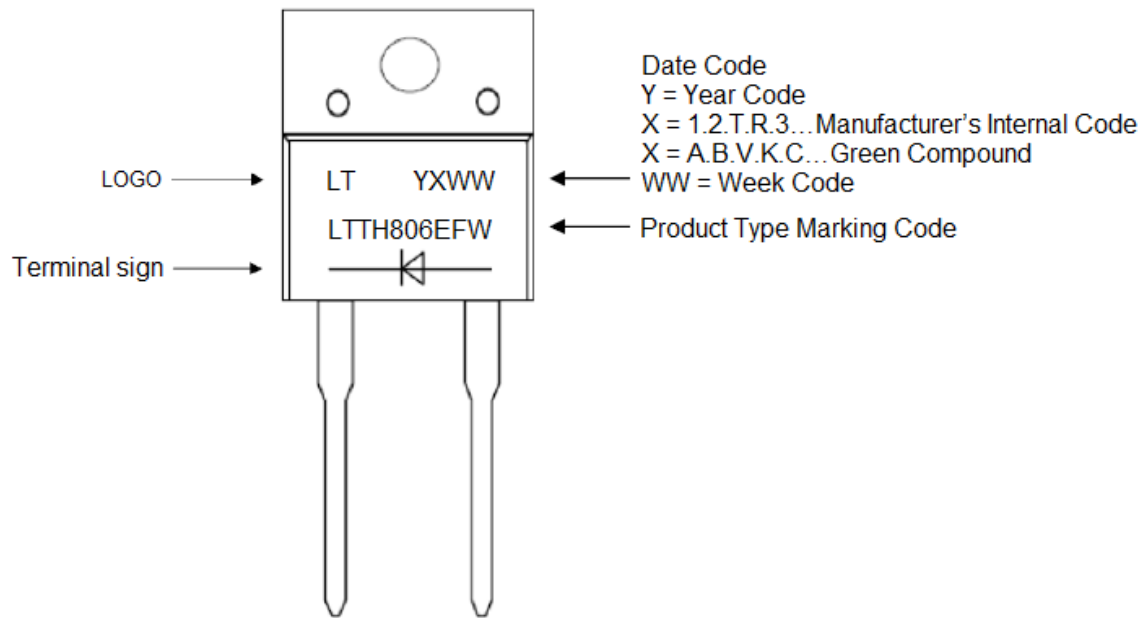
FIG.5- TYPICAL REVERSE CHARACTERISTICS



Ordering Information :

Part Number	Package	Packing	
		Qty.	Carrier
LTTH806EFW	ITO-220AC(W/B)	50pcs	Tube

Marking Information :



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