

**HYPER FAST
GLASS PASSIVATED RECTIFIERS**

**REVERSE VOLTAGE – 1000 Volts
FORWARD CURRENT – 8 Amperes**

FEATURES

- Ultrafast, soft recovery
- Very low conduction and switching losses
- High reverse voltage capability
- Qualification is according to AEC-Q101 Rev_C

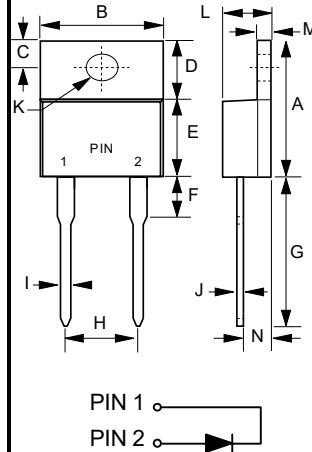
APPLICATION

- Power Supplies
- Motor control
- Mission-critical system

MECHANICAL DATA

- Case: JEDEC TO-220AC
- Case Material: "Green" molding compound, UL flammability classification 94V-0, "Halogen-free".
- Lead free finish, RoHS compliant
- Weight: 1.894 grams (Approximate)
- Marking code: LTTH810W

TO-220AC



TO-220AC		
DIM	MIN	MAX
A	14.40	15.20
B	9.65	10.67
C	2.54	3.43
D	5.84	6.86
E	8.26	9.28
F	--	4.2
G	12.70	14.73
H	4.83	5.33
I	0.51	1.14
J	0.30	0.64
K	3.53 Ø	4.09Ø
L	3.56	4.83
M	1.14	1.40
N	2.03	2.92

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}	1000	V
Maximum DC blocking voltage	V_{DC}	1000	V
Maximum Average rectified output current	$I_{(AV)}$	8	A
Peak forward surge current 10ms single half sine-wave	I_{FSM}	80	A
Operating junction and Storage Temperature range	T_J, T_{STG}	-55 ~ +150	°C

STATIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITIONS	SYMBOL	TYP	MAX	UNIT
Forward voltage (Note 1)	$I_F=8A$ $T_J=25^\circ C$ $T_J=125^\circ C$	V_F	-- 1.32	2.0 1.8	V
Leakage current	$V_R=1000V$ $T_J=25^\circ C$ $T_J=125^\circ C$	I_R	-- 20	5 --	μA
Typical junction capacitance (Note 2)		C_J	40		pF

DYNAMIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITIONS	SYMBOL	TYP	MAX	UNIT
Reverse recovery time	$V_R=30V, I_F=1A, di_F/dt= -50A/\mu S$	T_{rr}	65	85	nS
	$V_R=30V, I_F=1A, di_F/dt= -100A/\mu S$		48	65	
Reverse recovery current	$V_R=400V, I_F=8A, di_F/dt= -200A/\mu S$	I_{RM}	13	--	A

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	TYP	UNIT
Typical thermal resistance (Note 3,4)	R_{thJc}	2	°C/W
	R_{thJL}	3	

Note :

REV.-2, Sep-2019, KTGA33

- (1) 300us pulse width, 2% duty cycle.
- (2) Measured at 1.0MHz and applied voltage of 4.0V DC.
- (3) Thermal resistance test performed in accordance with JESD-51.
- (4) The unit mounted on fin type Heaksink (100mmX75mmX27mm)

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RATING AND CHARACTERISTIC CURVES LTTH810W



FIG.1 FORWARD CURRENT DERATING CURVE

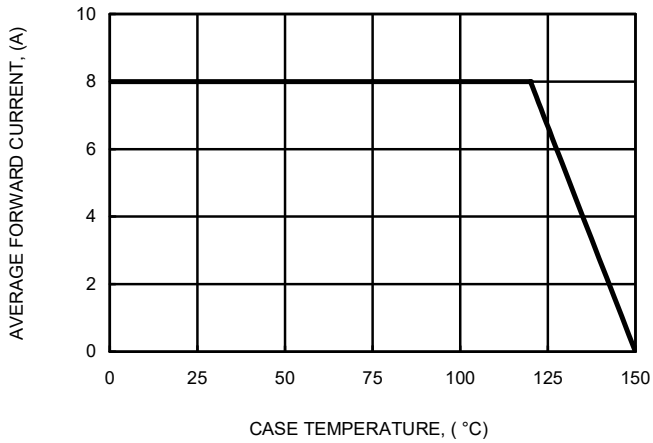


FIG.2 MAXIMUM NON-REPETITIVE SURGE CURRENT

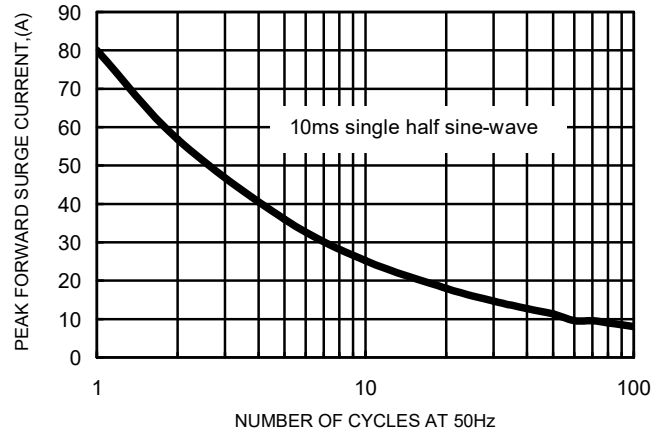


FIG.3 TYPICAL FORWARD CHARACTERISTICS

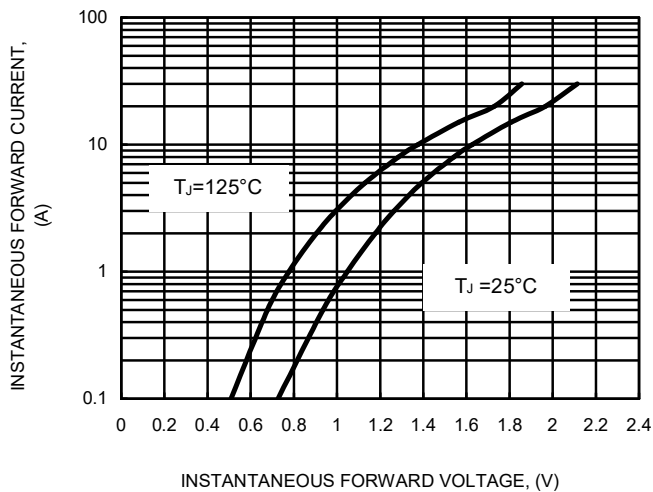


FIG.4 TYPICAL JUNCTION CAPACITANCE

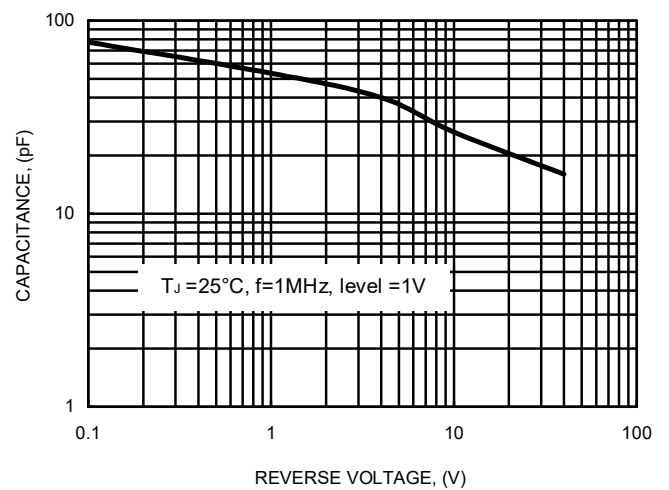
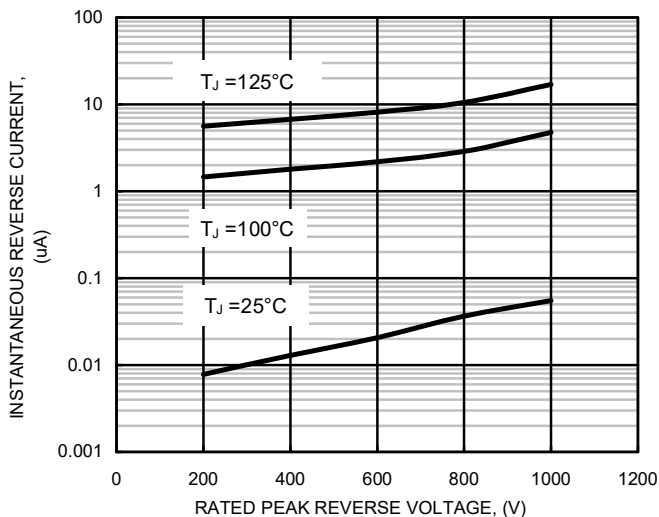


FIG.5 TYPICAL REVERSE CHARACTERISTICS



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