



LF1606FPL

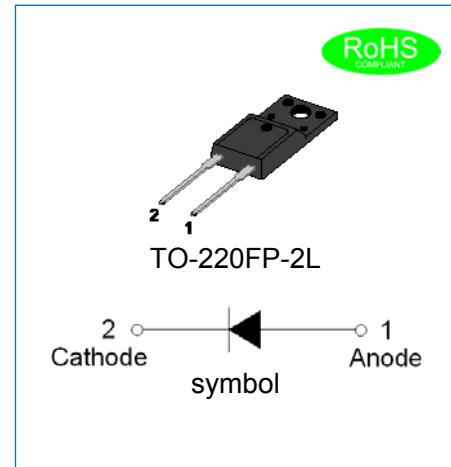
LOW FORWARD VOLTAGE RECTIFIER

Preliminary

Rev.0.3

DESCRIPTION:

- ✧ Plastic package has underwriters laboratories flammability classification 94V-0
- ✧ Glass passivated junction
- ✧ Lead free in compliance with EU RoHS 2011/65/EU directives
- ✧ Low forward voltage

**MECHANICAL DATA**

- ✧ Case: TO-220FP-2L, molded plastic over passivated junction
- ✧ Terminals: Solder plated, solderable per J-STD-002
- ✧ Weight: 1.67gram

ABSOLUTE MAXIMUM RATING AND ELECTRICAL CHARACTERISTICS

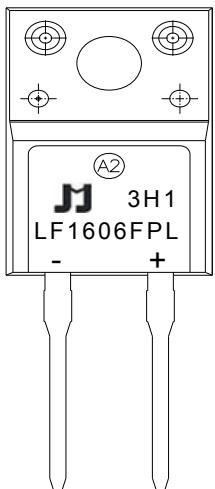
(Rating at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbol	LF1606FPL	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	600	V
Maximum RMS voltage	V_{RMS}	420	V
Maximum DC blocking voltage	V_{DC}	600	V
Maximum average forward current 0.375"(9.5mm) lead length at $T_c=100^\circ\text{C}$	$I_{F(AV)}$	16	A
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	300	A
Maximum forward voltage @ $I_F=16\text{A}$	V_F	0.95	V
Maximum DC reverse current at rated DC blocking voltage	I_R	5.0	μA
Typical junction capacitance $V_R=4.0\text{V}$, $f=1\text{MHz}$	C_J	500	μA
		120	pF
Operating junction and storage temperature range	T_j, T_{stg}	-55 to +150	°C

THERMAL RESISTANCES

Symbol	Parameter	LF1606FPL	Unit
$R_{th(j-c)}$	Junction to case	4	°C/W

MARKING



LF	Low Forward Voltage Rectifier
16	$I_{F(AV)}=16A$
06	$V_{RRM}:600V$
FPL	Package:TO-220FP-2L

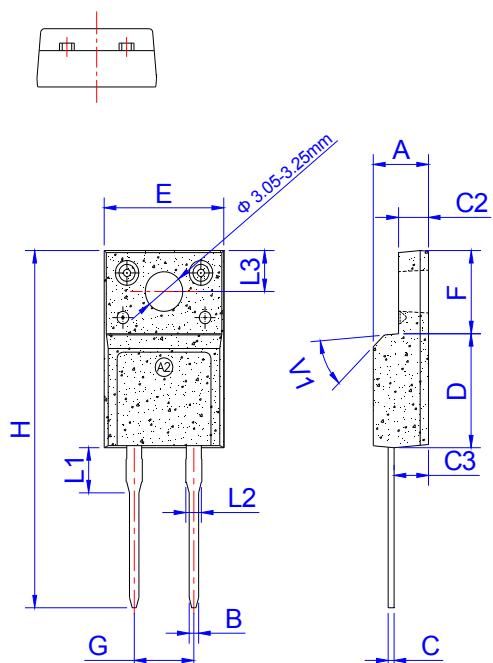
xH1: Month, 1、2、3 ~ 9、A、B、C

3x1:

2018	2019	2020	2021	2022	2023	2024
H	I	J	K	L	M	N
2025	2026	2027	2028	2029	2030	...
O	P	Q	R	S	T	...

3Hx: Batch number

PACKAGE MECHANICAL DATA



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.50		4.90	0.177		0.193
B	0.74	0.80	0.83	0.029	0.031	0.033
C	0.47		0.65	0.019		0.026
C2	2.45		2.75	0.096		0.108
C3	2.60		3.00	0.102		0.118
D	8.80		9.30	0.346		0.366
E	9.80		10.4	0.386		0.410
F	6.40		6.80	0.252		0.268
G		5.08			0.200	
H	28.0		29.8	1.102		1.173
L1		3.63			0.143	
L2	1.14		1.70	0.045		0.067
L3		3.30			0.130	
V1		45°			45°	

PACKAGE INFORMATION-TO-220FP-2L

OUTLINE	UNIT WEIGHT (g/PCS) typ.	TUBE (PCS)	PER CARTON (PCS)
TUBE	1.67	50	5,000

CHARACTERISTICS CURVE

FIG.1: Typical forward characteristics

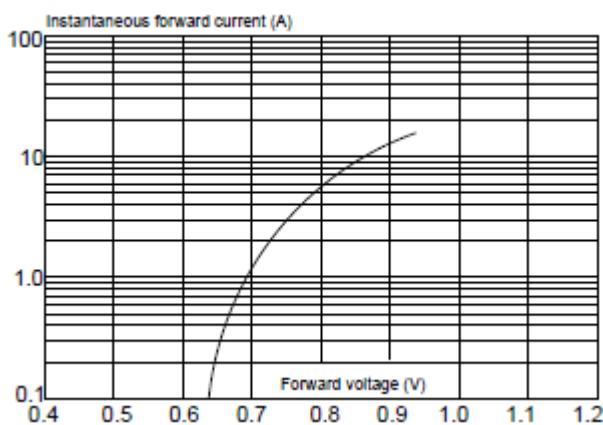


FIG.2: Typical reverse characteristics

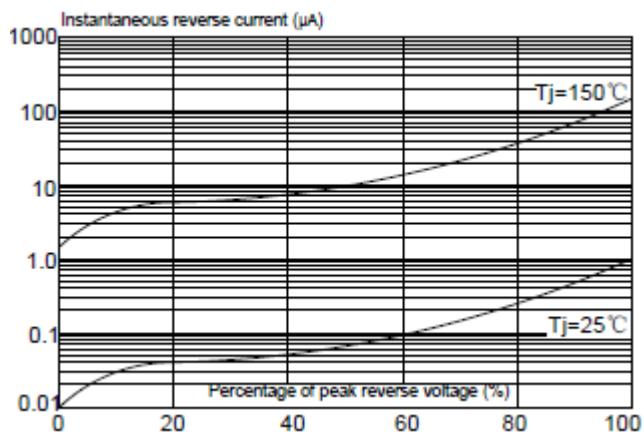


FIG.3: Maximum non-repetitive peak forward surge current

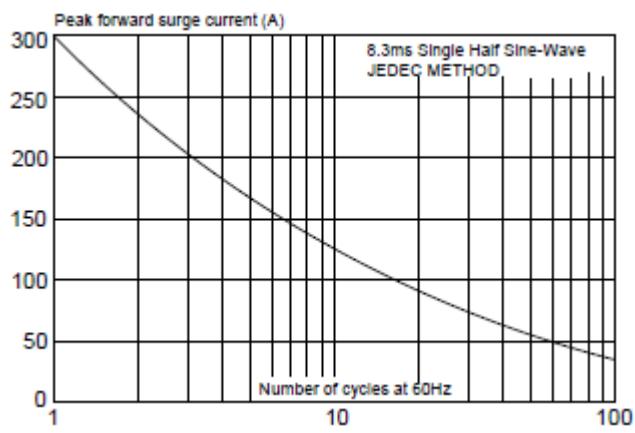
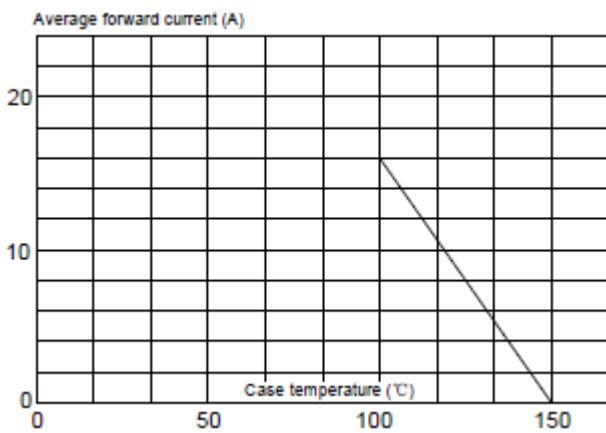


FIG.4: Forward current derating curve



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