



LF6006S

LOW FORWARD VOLTAGE RECTIFIER

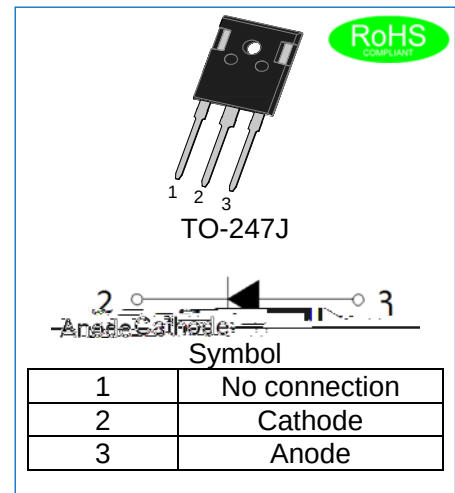
Rev.1.1

DESCRIPTION

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

MECHANICAL DATA

- ✧ Case: TO-247J, molded plastic over passivated junction
- ✧ Terminals: Solder plated, solderable per J-STD-002
- ✧ Weight: 5.682 gram



ABSOLUTE MAXIMUM RATING AND ELECTRICAL CHARACTERISTICS

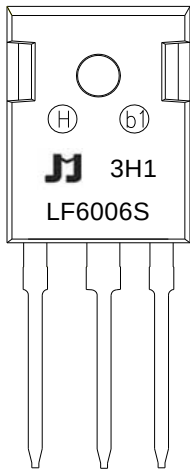
(Rating at 25 ambient temperature unless otherwise specified.)

Parameter		Symbol	LF6006S	Unit
Maximum repetitive peak reverse voltage		V_{RRM}	650	V
Maximum RMS voltage		V_{RMS}	455	V
Maximum DC blocking voltage		V_{DC}	650	V
Average forward current at $T_C=100$		$I_{F(AV)}$	60	A
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load		I_{FSM}	600	A
Maximum forward voltage @ $I_F=60A$		V_F	1.0	V
Maximum DC reverse current at rated DC blocking voltage	$T_j=25$	I_R	5.0	μA
	$T_j=150$		500	μA
Typical junction capacitance $V_R=4.0V$, $f=1MHz$		C_J	120	pF
Operating junction and storage temperature range		T_j, T_{stg}	-55 to +150	

THERMAL RESISTANCES

Symbol	Parameter	LF6006S	Unit
$R_{th(j-c)}$	Junction to case	0.2	/W

MARKING



LF	Low Forward Voltage Rectifier
60	$I_{F(AV)}=60A$
06	$V_{RRM}:650V$
S	TO-247J

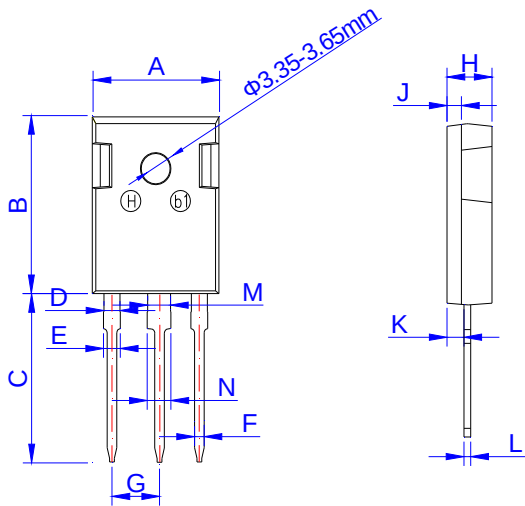
xH1: Month, 1/2/3~9/A/B/C

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



TO-247J

Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	15.50	15.80	16.10	0.610	0.622	0.634
B	20.80	21.00	21.20	0.819	0.827	0.835
C	19.70	20.00	20.30	0.776	0.787	0.799
D	1.80	2.00	2.20	0.071	0.079	0.087
E	1.90	2.10	2.30	0.075	0.083	0.091
F	1.00	1.20	1.40	0.039	0.047	0.055
G	5.25		5.65	0.207		0.222
H	4.80	5.00	5.20	0.189	0.197	0.205
J	1.90	2.00	2.10	0.075	0.079	0.083
K	2.20	2.35	2.50	0.087	0.093	0.098
L	0.41	0.60	0.79	0.016	0.024	0.031
M	2.80	3.00	3.20	0.110	0.118	0.126
N	2.90	3.10	3.30	0.114	0.122	0.130

PACKAGE INFORMATION-TO-247J

OUTLINE	UNIT WEIGHT (g/PCS) TYP	TUBE (PCS)	PER CARTON (PCS)
TUBE	5.682	30	2,250

CHARACTERISTICS CURVE

FIG.1: Typical forward characteristics(25 °C)

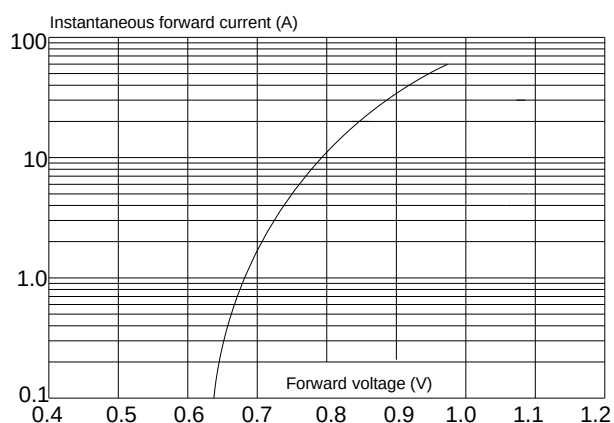


FIG.2: Typical reverse characteristics

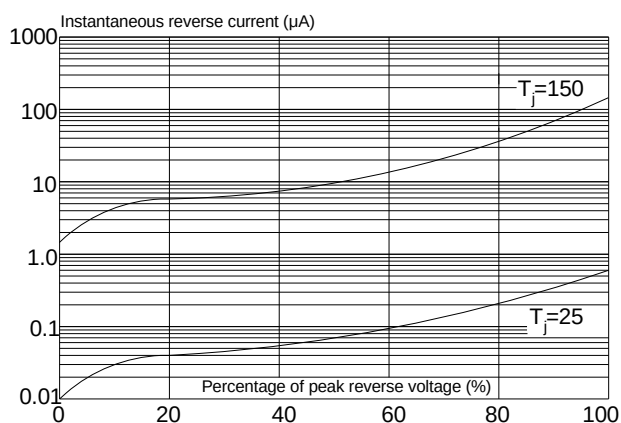


FIG.3: Maximum non-repetitive peak forward surge current

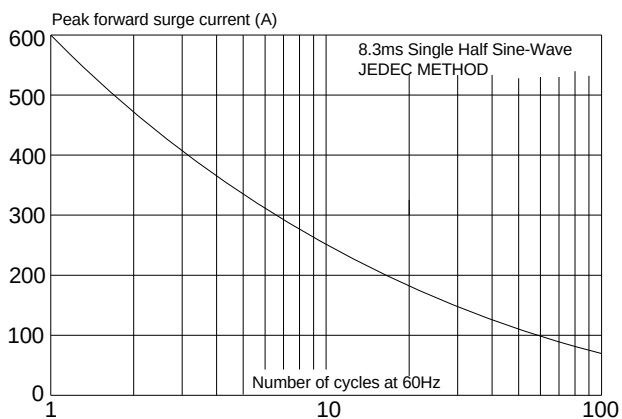
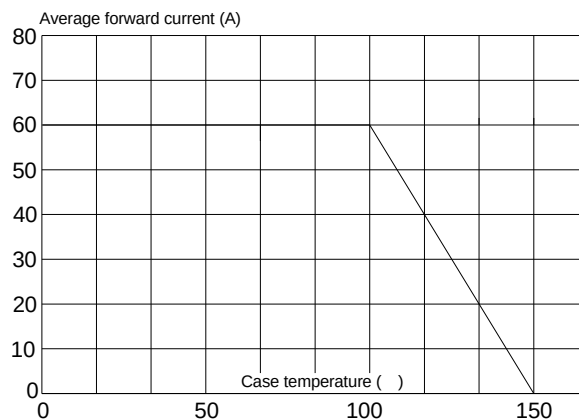


FIG.4: Forward current derating curve



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