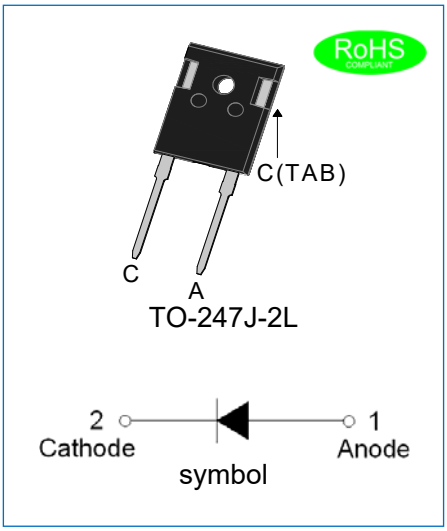
GP6012SL~GP6016SL

GENERAL PURPOSE RECTIFIER

Rev.3.4



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

MECHANICAL DATA

- ✧ Case: TO-247J-2L, molded plastic over passivated junction
- ✧ Terminals: Solder plated, solderable per J-STD-002
- ✧ Polarity: Pin C denotes cathode end
- ✧ Weight: 5.682 gram

ABSOLUTE MAXIMUM RATING AND ELECTRICAL CHARACTERISTICS

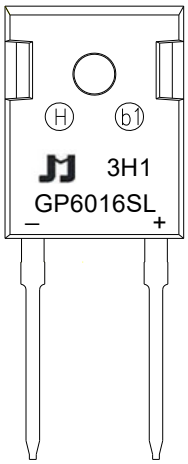
(Rating at 25℃ ambient temperature unless otherwise specified.)

Parameter		symbol	GP6012SL	GP6016SL	Unit
Maximum repetitive peak reverse voltage		V_{RRM}	1200	1600	V
Maximum RMS voltage		V_{RMS}	840	1120	V
Maximum DC blocking voltage		V_{DC}	1200	1600	V
Average forward current at T_{mb}=125℃		$I_{F(AV)}$	60		A
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load		I_{FSM}	600	700	A
Maximum forward voltage @I_F=60A		V_F	1.2		V
Maximum DC reverse current at rated DC blocking voltage	T_j=25℃	I_R	10		μA
	T_j=150℃		1.5		mA
Typical junction capacitance V_R=4.0V, f=1MHz		C_J	250		pF
Operating junction and storage temperature range		T_J,T_{STG}	-55 to +150		℃

THERMAL RESISTANCES

Symbol	Parameter	Min.	Typ.	Max.	Unit
$R_{th(j-mb)}$	Thermal resistance from junction to mounting base	-	-	0.25	℃/W
$R_{th(j-a)}$	Thermal resistance from junction to ambient	-	40	-	℃/W

MARKING



G	General Purpose Rectifier
P	Pin
60	$I_{F(AV)}$=60A
16	V_{RRM}:1600V
SL	TO-247J-2L

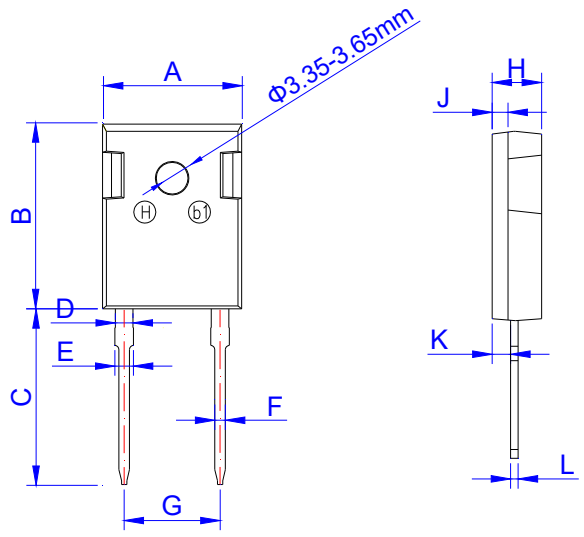
xH1: Month, 1/2/3~9/A/B/C

3**x**1:

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	…

3H**x**: Batch number

PACKAGE MECHANICAL DATA



TO-247J-2L

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	10.50		11.30	0.413		0.445
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

PACKAGE INFORMATION-TO-247J-2L

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

CHARACTERITICS CURVE

FIG.1: Typical forward characteristics

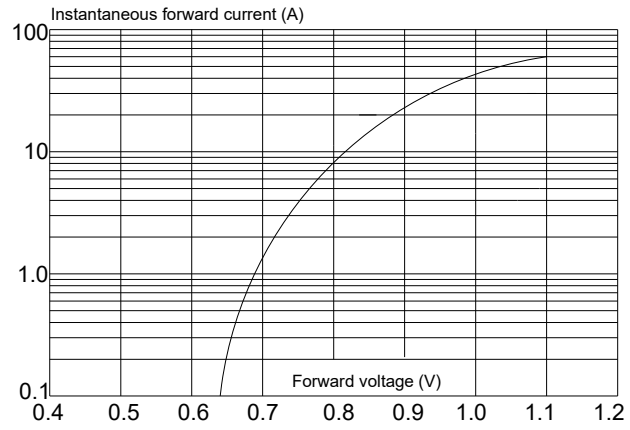


FIG.2: Typical reverse characteristics

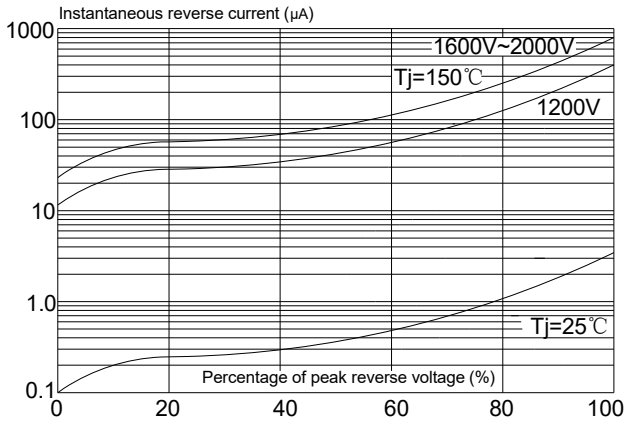


FIG.3: Maximum non-repetitive peak forward surge current

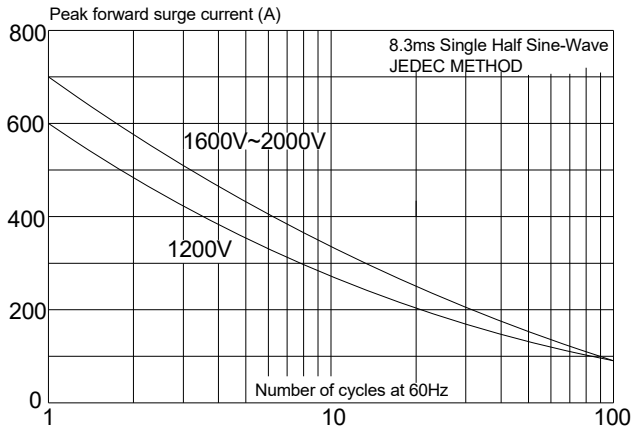
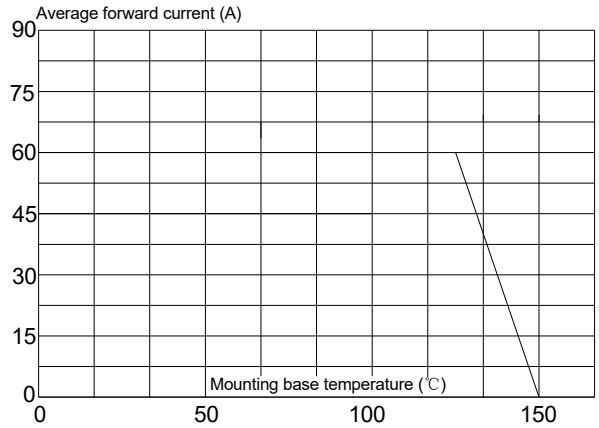


FIG.4: Forward current derating curve



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