

GP3012SL~GP3016SL GENERAL PURPOSE RECTIFIER

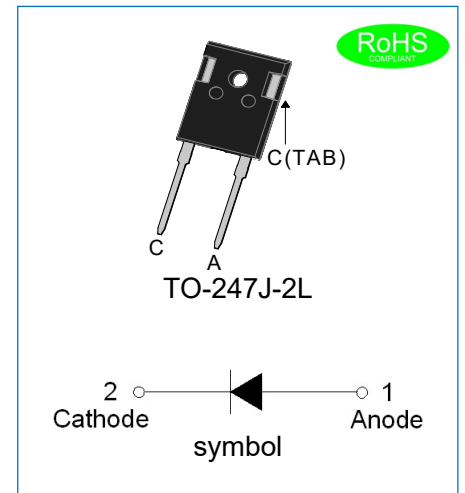
Rev.3.1

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

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

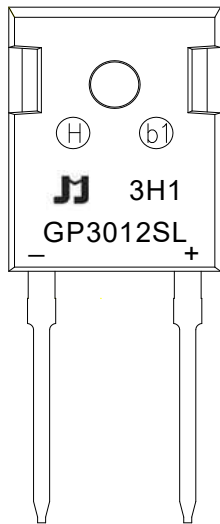
(Rating at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbol	GP3012SL	GP3016SL	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 $T_L=100^\circ\text{C}$	$I_{F(AV)}$	30		A
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	350		A
Maximum forward voltage @ $I_F=30\text{A}$	V_F	1.2		V
Maximum DC reverse current at rated DC blocking voltage	$T_J=25^\circ\text{C}$	I_R	5	μA
	$T_J=150^\circ\text{C}$		1	mA
Typical junction capacitance $V_R=4.0\text{V}$, $f=1\text{MHz}$	C_J	120	180	pF
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150		$^\circ\text{C}$

HERMAL RESISTANCES

Symbol	Parameter	GP3012SL	GP3016SL	Unit
$R_{th(j-c)}$	Junction to case	0.4		°C/W

MARKING



G	General Purpose Rectifier
P	Pin
30	$I_{F(AV)}=30A$
12	$V_{RRM}:1200V$
SL	TO-247J-2L

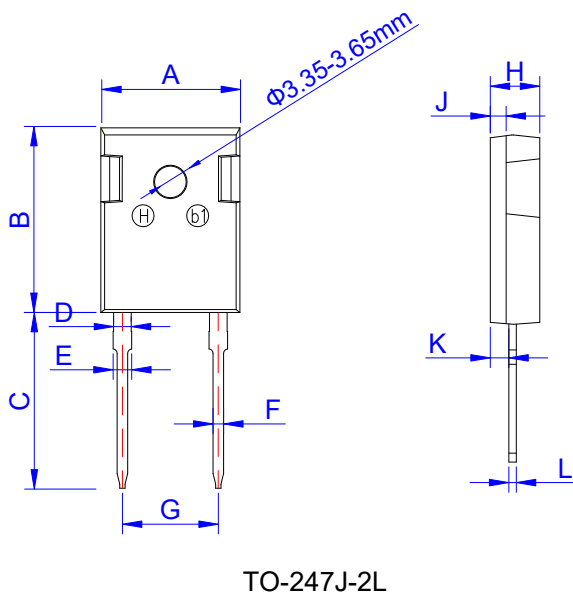
$\underline{x}H1$: Month, 1/2/3~9/A/B/C

$3\underline{x}1$:

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	...

$3H\underline{x}$: Batch number

PACKAGE MECHANICAL DATA

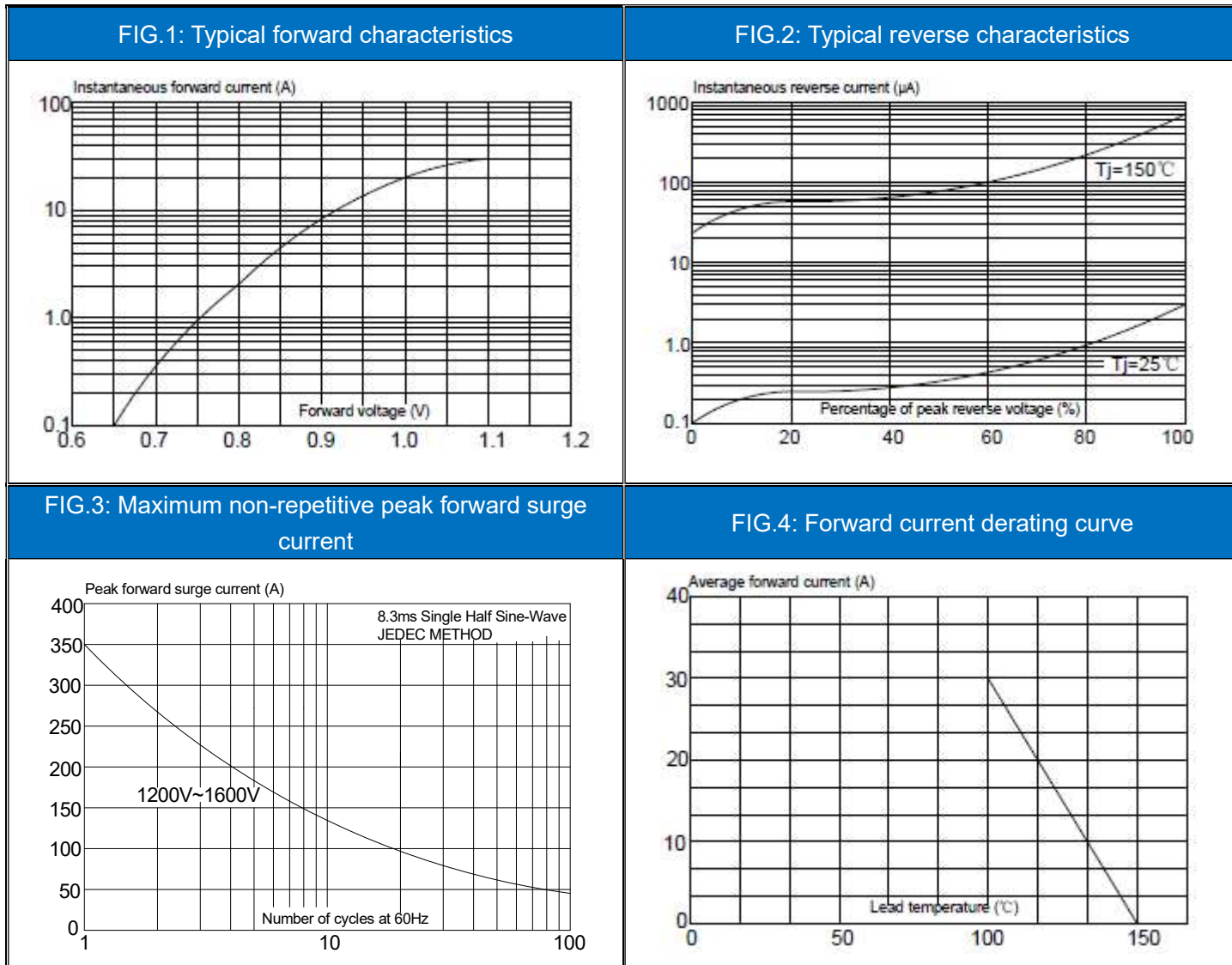


Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	15.50	15.80	16.10	0.610	0.622	0.634
B	20.80	21.00	21.20	0.819	0.827	0.835
C	19.70	20.00	20.30	0.776	0.787	0.799
D	1.80	2.00	2.20	0.071	0.079	0.087
E	1.90	2.10	2.30	0.075	0.083	0.091
F	1.00	1.20	1.40	0.039	0.047	0.055
G	10.50		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

CHARACTERISTICS CURVE



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