



GP3012 GENERAL PURPOSE RECTIFIER

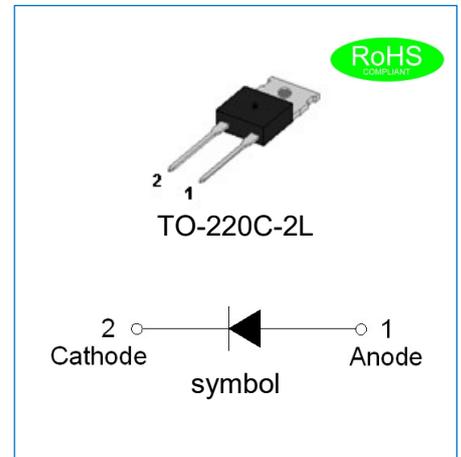
Rev.1.0

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-220C-2L, molded plastic over passivated junction
- ✧ Terminals: Solder plated, solderable per J-STD-002
- ✧ Weight: 2.04 gram



ABSOLUTE MAXIMUM RATING AND ELECTRICAL CHARACTERISTICS

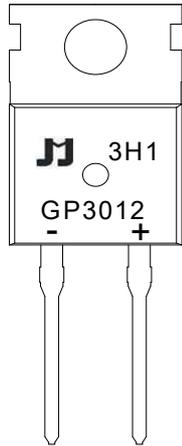
(Rating at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbol	GP3012	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	1200	V
Maximum RMS voltage	V_{RMS}	840	V
Maximum DC blocking voltage	V_{DC}	1200	V
Maximum 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 (JEDEC method)	I_{FSM}	300	A
Maximum forward voltage @ $I_F=30\text{A}$	V_F	1.2	V
Maximum DC reverse current at rated DC blocking voltage	$T_j=25^\circ\text{C}$	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	pF
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150	$^\circ\text{C}$

THERMAL RESISTANCES

Symbol	Parameter	GP3012	Unit
$R_{th(j-c)}$	Junction to case	1	°C/W

MARKING



G	General Purpose Rectifier
P	Pin
30	$I_{F(AV)}=30A$
12	$V_{RRM}:1200V$

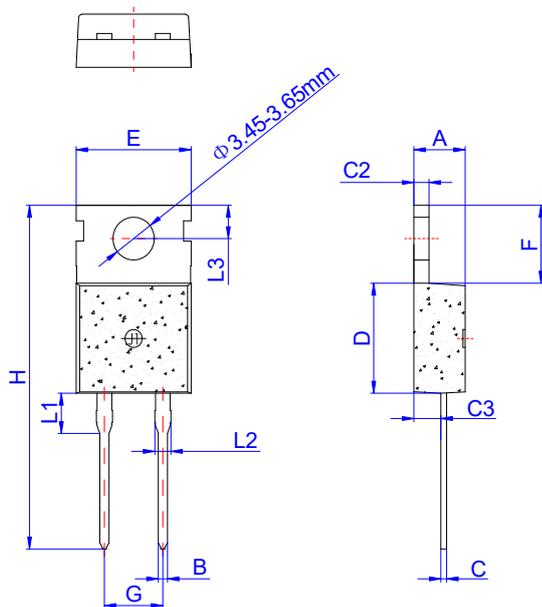
xH1: Month, 1、2、3 ~ 9、A、B、C

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

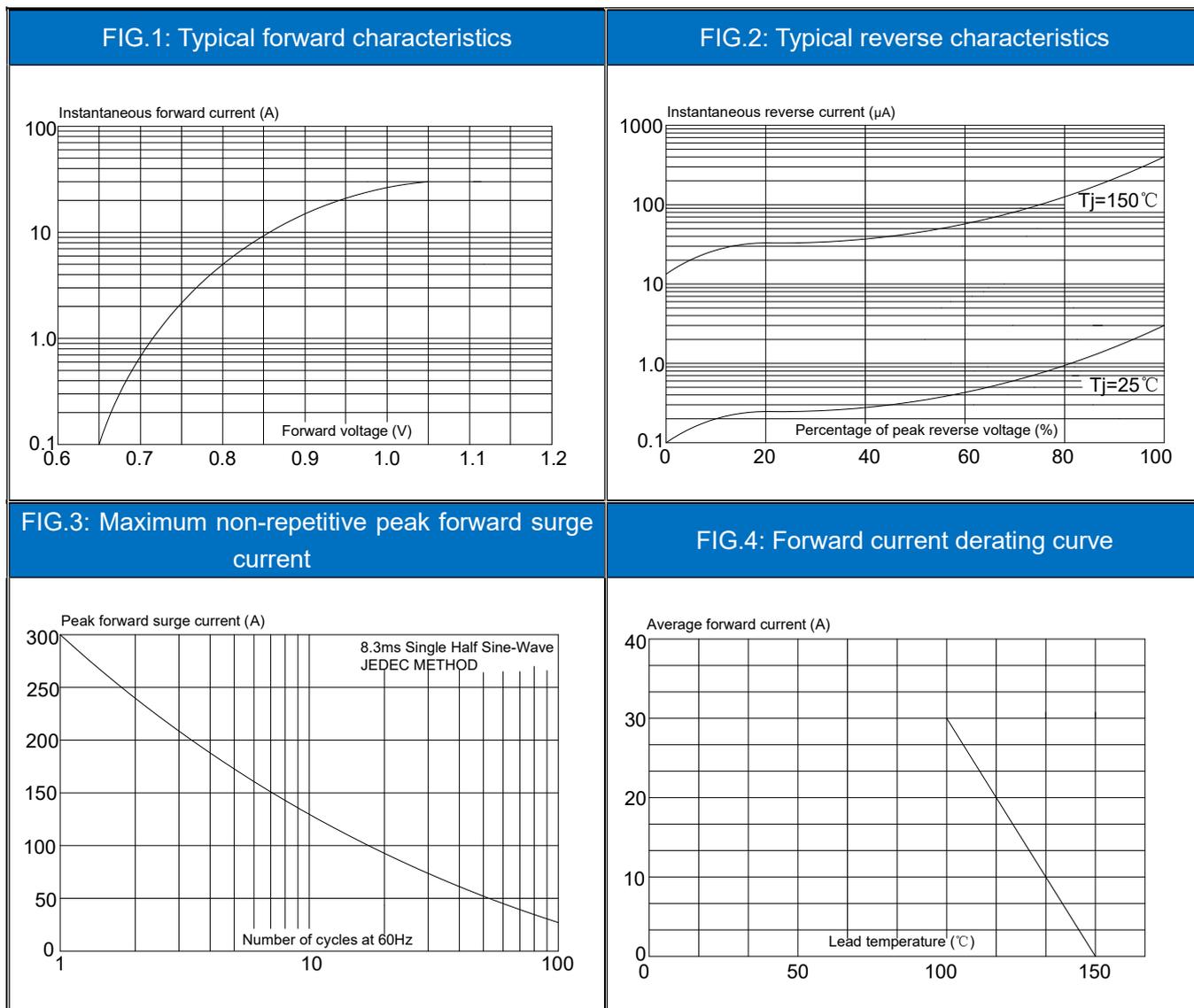


Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.40		4.60	0.173		0.181
B	0.70		0.90	0.028		0.035
C	0.45		0.60	0.018		0.024
C2	1.23		1.32	0.048		0.052
C3	2.20		2.60	0.087		0.102
D	8.90		9.90	0.350		0.390
E	9.90		10.3	0.390		0.406
F	6.30		6.90	0.248		0.272
G		5.08			0.200	
H	28.0		29.8	1.102		1.173
L1		3.39			0.133	
L2	1.14		1.70	0.045		0.067
L3	2.65		2.95	0.104		0.116
Φ		3.6			0.142	

PACKAGE INFORMATION-TO-220C-2L

OUTLINE	UNIT WEIGHT (g/PCS) typ.	TUBE (PCS)	PER CARTON (PCS)
TUBE	2.04	50	5,000

CHARACTERISTICS CURVE



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