



GP1016~GP1020

GENERAL PURPOSE RECTIFIER

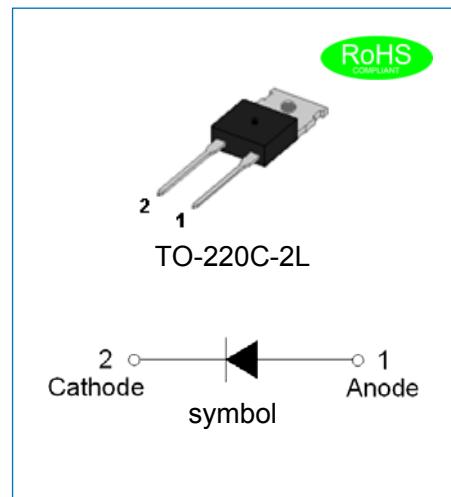
Rev.2.5

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
- ✧ Polarity: Pin 2 denotes cathode end
- ✧ Weight: 2.04 gram

**ABSOLUTE MAXIMUM RATING AND ELECTRICAL CHARACTERISTICS**

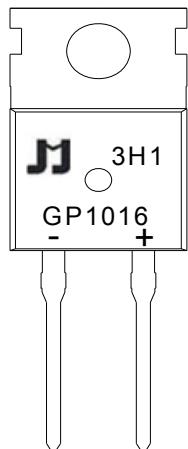
(Rating at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbol	GP1016	GP1020	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	1600	2000	V
Maximum RMS voltage	V_{RMS}	1120	1400	V
Maximum DC blocking voltage	V_{DC}	1600	2000	V
Maximum average forward current at $T_L=100^\circ\text{C}$	$I_{F(AV)}$	10		A
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	120		A
Maximum forward voltage @ $I_F=10\text{A}$	V_F	1.2		V
Maximum DC reverse current at rated DC blocking voltage	$T_j=25^\circ\text{C}$	I_R	5	
	$T_j=150^\circ\text{C}$		1	
Typical junction capacitance $V_R=4.0\text{V}, f=1\text{MHz}$	C_J	60		pF
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150		°C

THERMAL RESISTANCES

Symbol	Parameter	GP1016	GP1020	Unit
$R_{th(j-c)}$	Junction to case		4	°C/W

MARKING



G	General Purpose Rectifier	
P	Pin	
10	$I_{F(AV)}=10A$	
16	$V_{RRM}:1600V$	

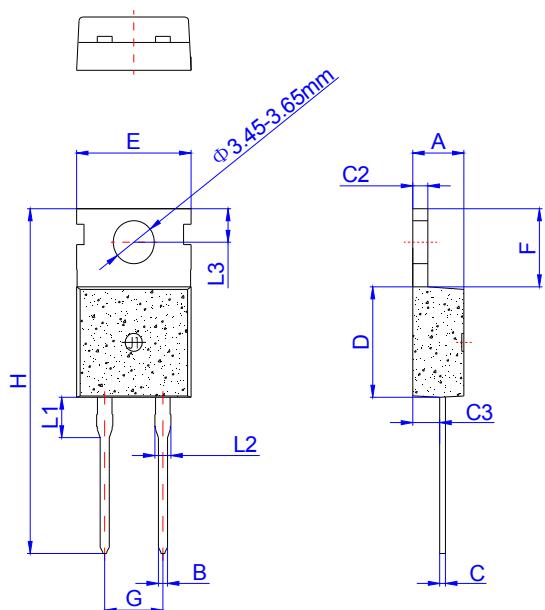
xH1: Month, 1、2、3 ~ 9、A、B、C

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

FIG.1: Typical forward characteristics

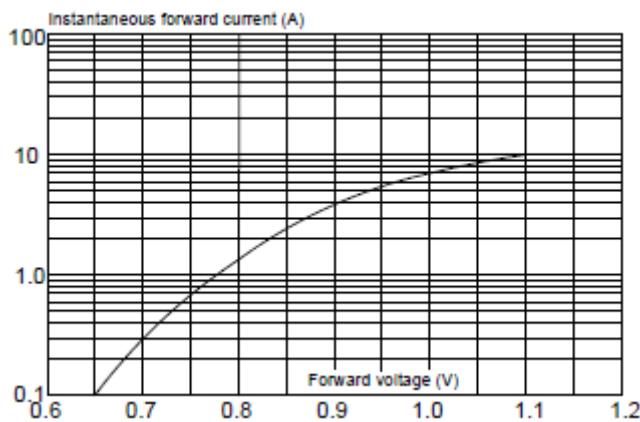


FIG.2: Typical reverse characteristics

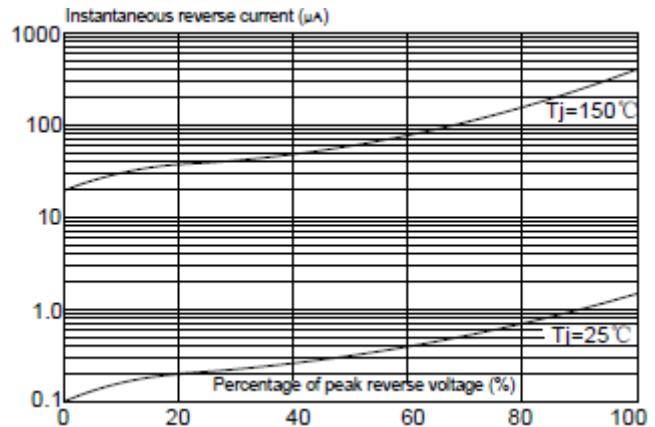


FIG.3: Maximum non-repetitive peak forward surge current

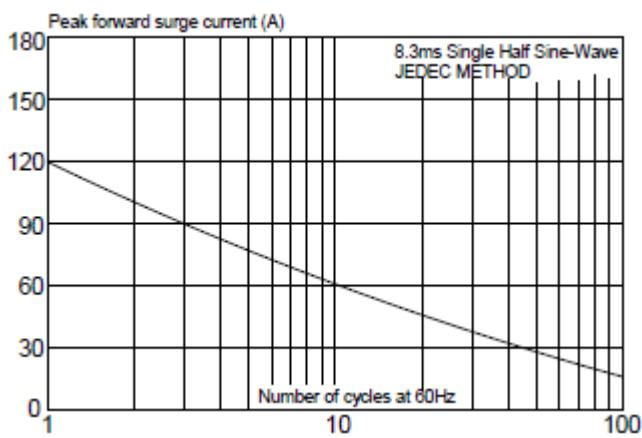
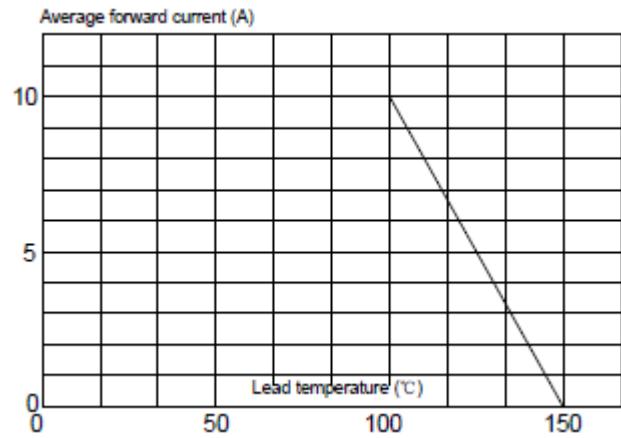


FIG.4: Forward current derating curve



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