



GP1606E~GP1620E GENERAL PURPOSE RECTIFIER

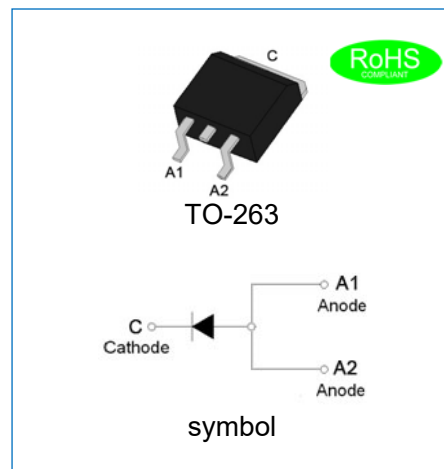
Rev.1.3

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-263, molded plastic over passivated junction
- ✧ Terminals: Solder plated, solderable per J-STD-002
- ✧ Weight: 1.514 gram



ABSOLUTE MAXIMUM RATING AND ELECTRICAL CHARACTERISTICS

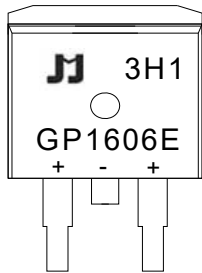
(Rating at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbol	GP1606E	GP1608E	GP1610E	GP1612E	GP1616E	GP1620E	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	600	800	1000	1200	1600	2000	V
Maximum RMS voltage	V_{RMS}	420	560	700	840	1120	1400	V
Maximum DC blocking voltage	V_{DC}	600	800	1000	1200	1600	2000	V
Average forward current at $T_L=100^\circ\text{C}$	$I_{F(AV)}$	16						A
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	250				160		A
Maximum forward voltage @ $I_F=16\text{A}$	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	85						pF
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150						$^\circ\text{C}$

THERMAL RESISTANCES

Symbol	Parameter	GP1606E	GP1608E	GP1610E	GP1612E	GP1616E	GP1620E	Unit
R _{th(j-c)}	Junction to case	4						°C/W

MARKING



G	General Purpose Rectifier
P	Pin
16	I _{F(AV)} =16A
06	V _{RRM} :600V
E	Package: TO-263

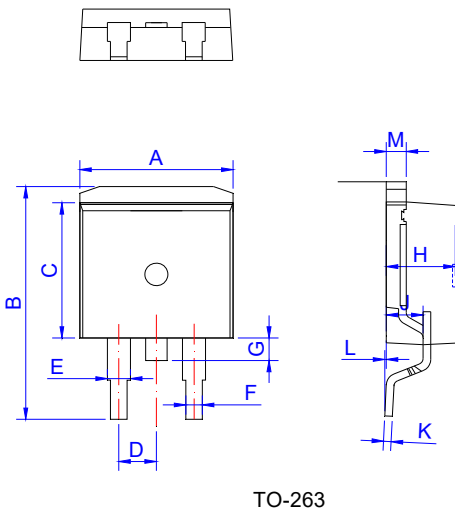
xH1: Month, 1/2/3~9/A/B/C

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	...

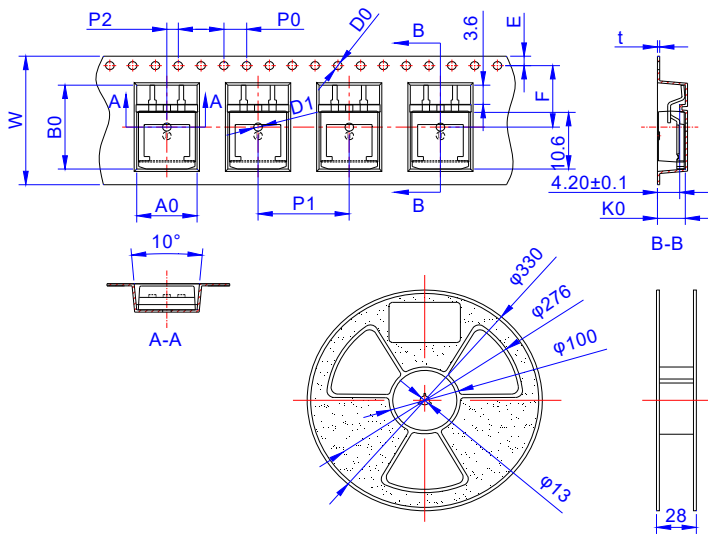
3Hx: Batch number

PACKAGE MECHANICAL DATA



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	9.90		10.20	0.390		0.402
B	14.70		15.80	0.579		0.622
C	8.80		9.60	0.346		0.378
D		2.54			0.100	
E	1.20		1.40	0.047		0.055
F	0.75		0.85	0.030		0.033
G			1.75			0.069
H	4.40		4.70	0.173		0.185
J	2.30		2.70	0.091		0.106
K	0.38		0.55	0.015		0.022
L	0	0.10	0.25	0	0.004	0.010
M	1.17		1.37	0.046		0.054

TAPE AND REEL SPECIFICATION-TO-263

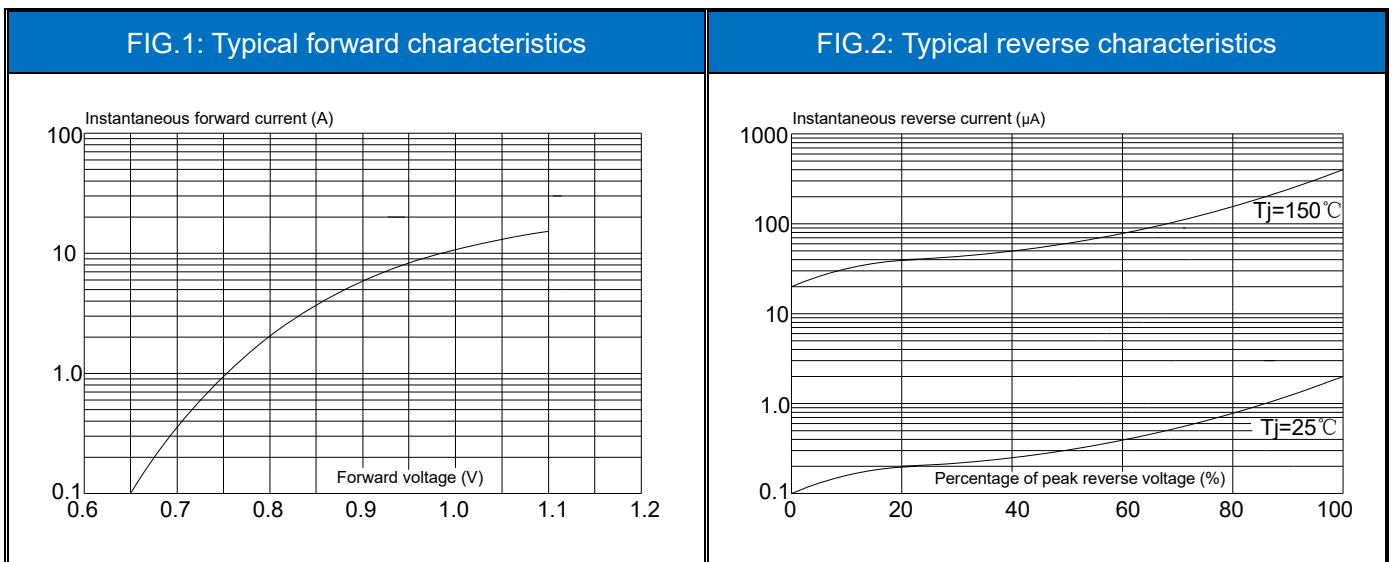


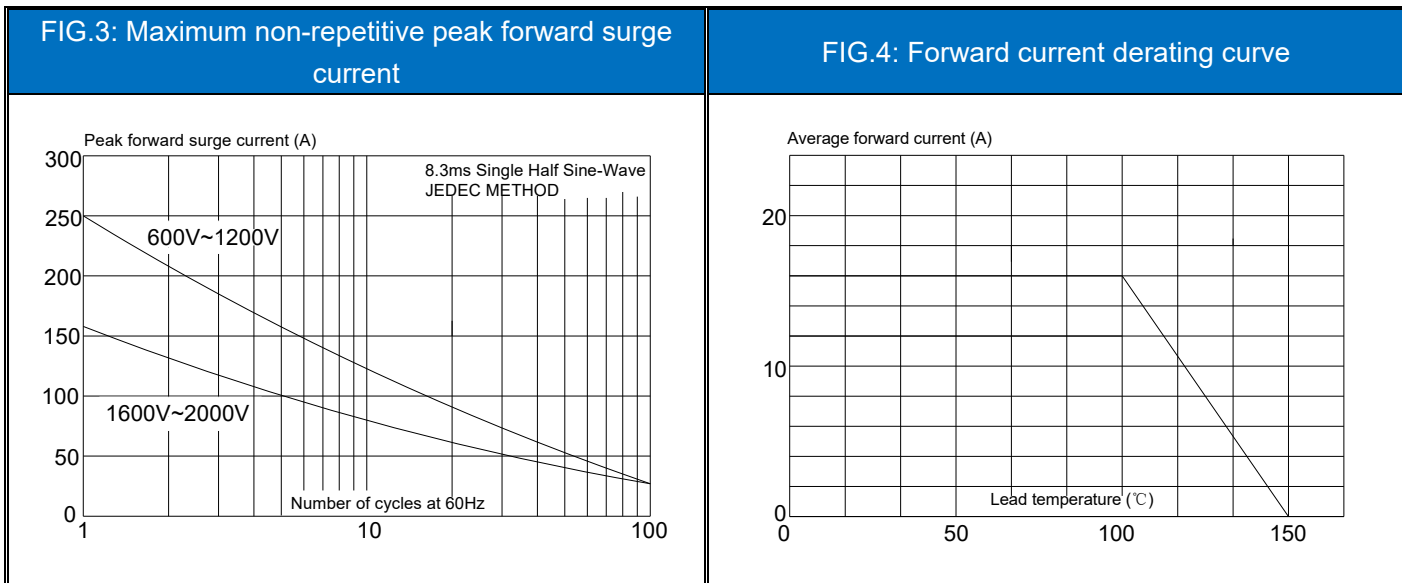
Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
W	23.70	24.00	24.30	0.933	0.945	0.957
E	1.65	1.75	1.85	0.065	0.069	0.073
F	11.40	11.50	11.60	0.449	0.453	0.457
D0	-	1.50	1.60	-	0.059	0.063
D1	-	1.50	1.60	-	0.059	0.063
P0	3.90	4.00	4.10	0.154	0.157	0.161
P1	15.90	16.00	16.10	0.626	0.630	0.634
P2	1.90	2.00	2.10	0.075	0.079	0.083
A0	10.80	10.90	11.00	0.425	0.429	0.433
B0	16.20	16.30	16.40	0.638	0.642	0.646
K0	4.80	4.90	5.00	0.189	0.193	0.197
t	0.35	0.40	0.45	0.014	0.016	0.018

PACKAGE INFORMATION-TO-263

PART No.	UNIT WEIGHT (g/PCS) TYP	TUBE (PCS)	PER CARTON (PCS)
GP1606E~GP1620E	1.514	50	5,000
PART No.	UNIT WEIGHT (g/PCS) TYP	REEL (PCS)	PER CARTON (PCS)
GP1606E-R~GP1620E-R	1.514	800	4,000

CHARACTERISTICS CURVE





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