

Features

- ✧ Glass passivated chip junction
- ✧ High efficiency, Low VF
- ✧ High current capability
- ✧ High reliability
- ✧ High surge current capability
- ✧ Low power loss
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode



Mechanical Data

- ✧ Cases: TO-220AC Molded plastic
- ✧ Epoxy: UL 94V-0 rate flame retardant
- ✧ Lead: Pure tin plated, lead free, solderable per MIL-STD-202, Method 208 guaranteed
- ✧ Polarity: As marked
- ✧ High temperature soldering guaranteed: 260°C/10 seconds .16", (4.06mm) from case.
- ✧ Weight: 2.24 grams

Ordering Information(example)

Part No.	Package	Packing	Packing code	Green Compound Packing code
GPA1601	TO-220AC	50 / TUBE	D0	D0G

Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Type Number	Symbol	GPA 1601	GPA 1602	GPA 1603	GPA 1604	GPA 1605	GPA 1606	GPA 1607	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified	$I_{F(AV)}$	16							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	250							A
Maximum Instantaneous Forward Voltage (Note 1) @ 16 A	V_F	1.1							V
Maximum DC Reverse Current at @ $T_A=25^\circ C$ Rated DC Blocking Voltage @ $T_A=125^\circ C$	I_R	10 250							μA
Typical Junction Capacitance (Note 2)	C_j	100							pF
Typical Thermal Resistance	$R_{\theta JC}$	2.0							$^\circ C/W$
Operating Temperature Range	T_J	- 65 to + 150							$^\circ C$
Storage Temperature Range	T_{STG}	- 65 to + 150							$^\circ C$

Note1: Pulse Test with PW=300 usec, 1% Duty Cycle

Note2: Measured at 1 MHz and Applied Reverse Voltage of 4.0 Volts D.C.

RATINGS AND CHARACTERISTIC CURVES (GPA1601 THRU GPA1607)

FIG. 1- MAXMUM FORWARD CURRENT DERATING CURVE

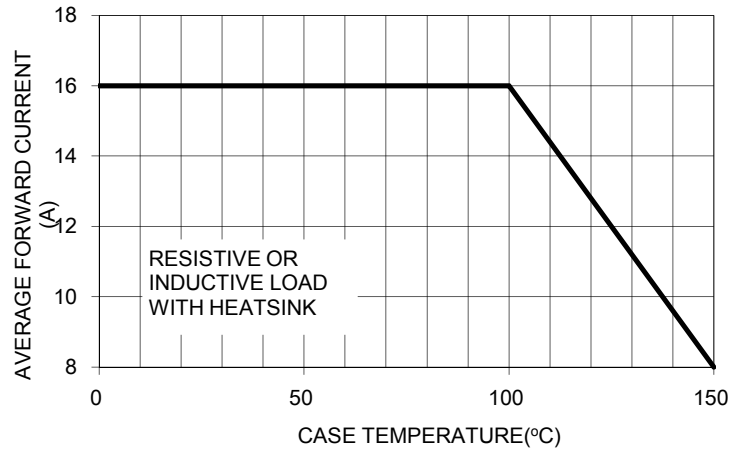


FIG. 2- TYPICAL REVERSE CHARACTERISTICS

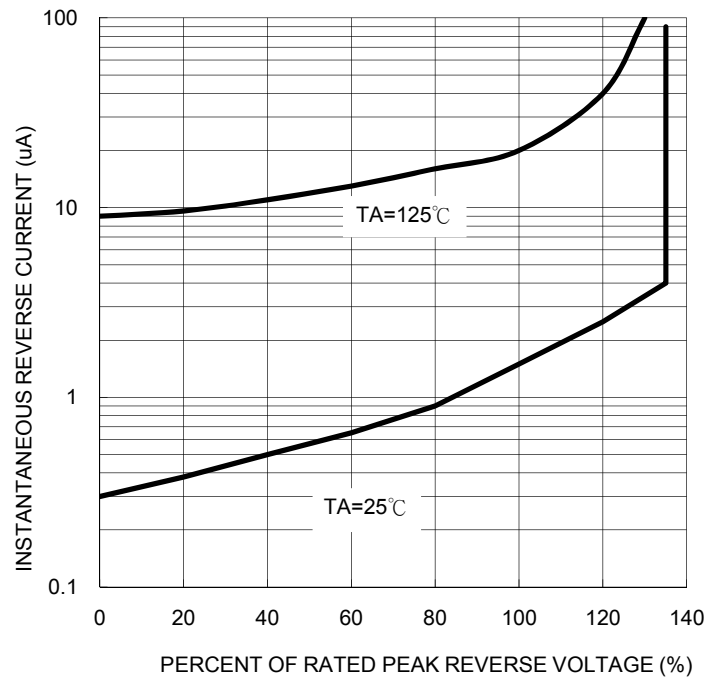


FIG. 3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

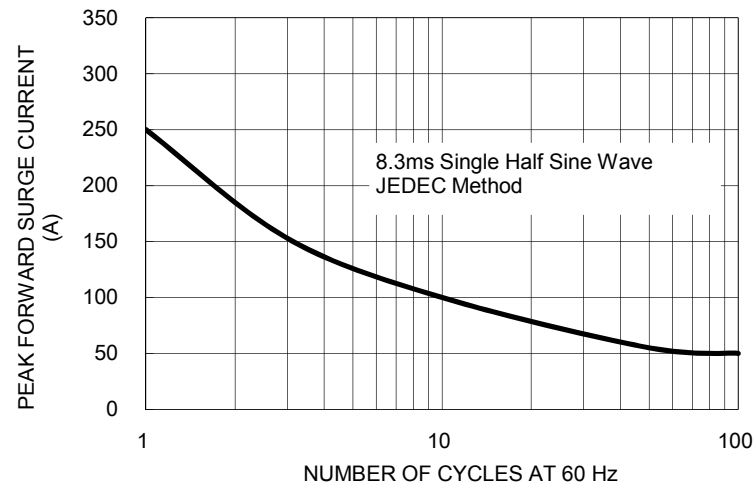


FIG. 4- TYPICAL JUNCTION CAPACITANCE

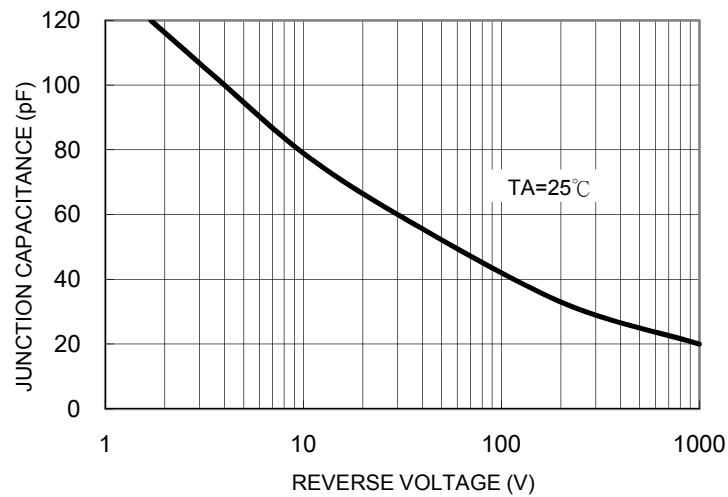
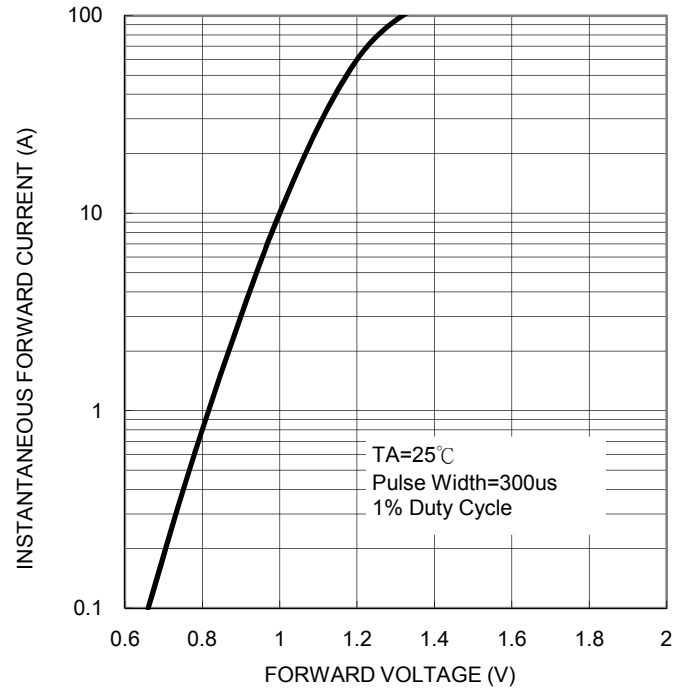


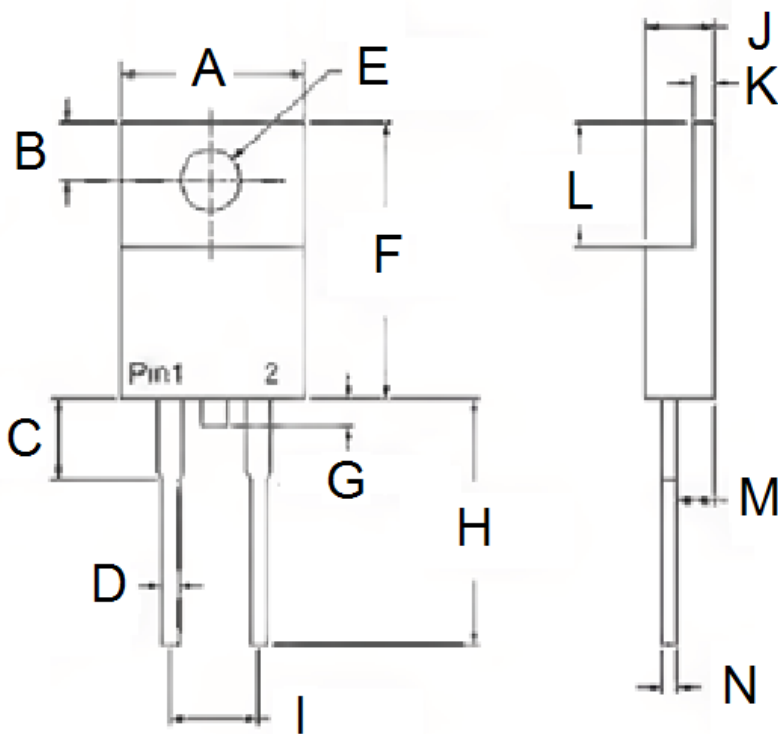
FIG. 5- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



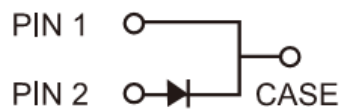
Ordering information

Part No.	Package	BULK Packing	Packing code	Green Compound Packing code
GPA160x	TO-220AC	50 / TUBE	C0	C0G
	TO-220AC	50 / TUBE	D0	D0G

Note: "x" is Device Code from "1" thru "7".

Dimensions


DIM.	Unit(mm)		Unit(inch)	
	Min	Max	Min	Max
A	-	10.50	-	0.413
B	2.62	3.44	0.103	0.135
C	2.80	4.20	0.110	0.165
D	0.68	0.94	0.027	0.037
E	3.54	4.00	0.139	0.157
F	14.60	16.00	0.575	0.630
G	-	1.60	-	0.063
H	13.19	14.79	0.519	0.582
I	4.95	5.20	0.195	0.205
J	4.42	4.76	0.174	0.187
K	1.14	1.40	0.045	0.055
L	5.84	6.86	0.230	0.270
M	2.20	2.80	0.087	0.110
N	0.35	0.64	0.014	0.025


Marking Diagram


P/N = Specific Device Code
 G = Green Compound
 YWW = Date Code