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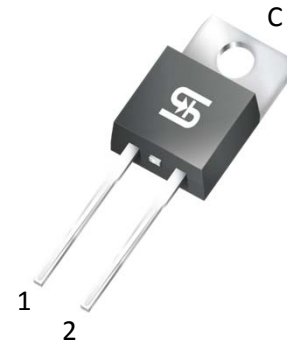
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## 8A, 50V - 1000V Glass Passivated Rectifiers

### FEATURES

- Glass passivated chip junction
- High efficiency, Low VF
- High current capability
- High reliability
- High surge current capability
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21



**TO-220AC**



### MECHANICAL DATA

**Case:** TO-220AC

Molding compound: UL flammability classification rating 94V-0

Part no. with suffix "H" means AEC-Q101 qualified

Packing code with suffix "G" means green compound (halogen-free)

**Terminal:** Matte tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 2 whisker test

**Polarity:** As marked

**Weight:** 1.8 g (approximately)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> =25°C unless otherwise noted)									
PARAMETER	SYMBOL	GPA 801	GPA 802	GPA 803	GPA 804	GPA 805	GPA 806	GPA 807	UNIT
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum average forward rectified current	I <sub>F(AV)</sub>	8							A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	150							A
Maximum instantaneous forward voltage (Note 1) I <sub>F</sub> =8 A	V <sub>F</sub>	1.1							V
Maximum reverse current @ rated V <sub>R</sub> T <sub>J</sub> =25°C T <sub>J</sub> =125°C	I <sub>R</sub>	5 100							μA
Typical junction capacitance (Note 2)	C <sub>J</sub>	50							pF
Typical thermal resistance	R <sub>θJA</sub>	2.5							°C/W
Operating junction temperature range	T <sub>J</sub>	- 55 to +150							°C
Storage temperature range	T <sub>STG</sub>	- 55 to +150							°C

Note 1: Pulse test with PW=300μs, 1% duty cycle

Note 2: Measured at 1 MHz and applied reverse voltage of 4.0V DC.

**ORDERING INFORMATION**

PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX (*)	PACKAGE	PACKING
GPA80x (Note 1)	H	C0	G	TO-220AC	50 / Tube

Note 1: "x" defines voltage from 50V (GPA801) to 1000V (GPA807)

\*: Optional available

**EXAMPLE**

EXAMPLE P/N	PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
GPA807HC0G	GPA807	H	C0	G	AEC-Q101 qualified Green compound

**RATINGS AND CHARACTERISTICS CURVES**

(T<sub>A</sub>=25°C unless otherwise noted)

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

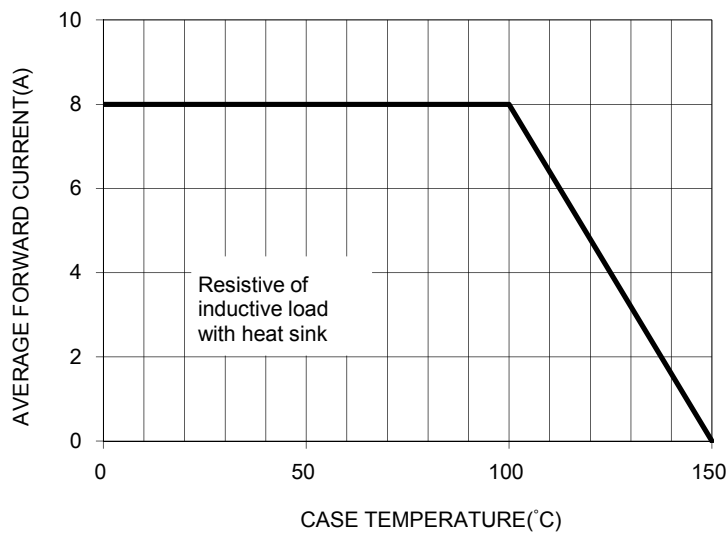


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

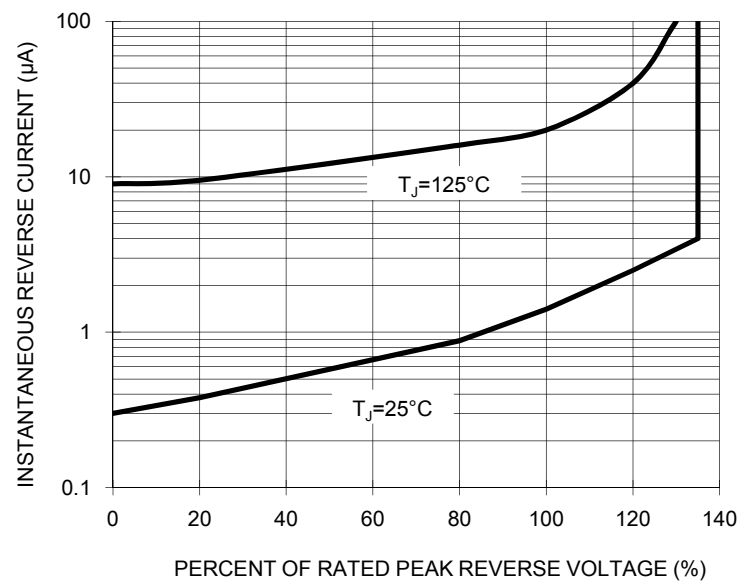


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

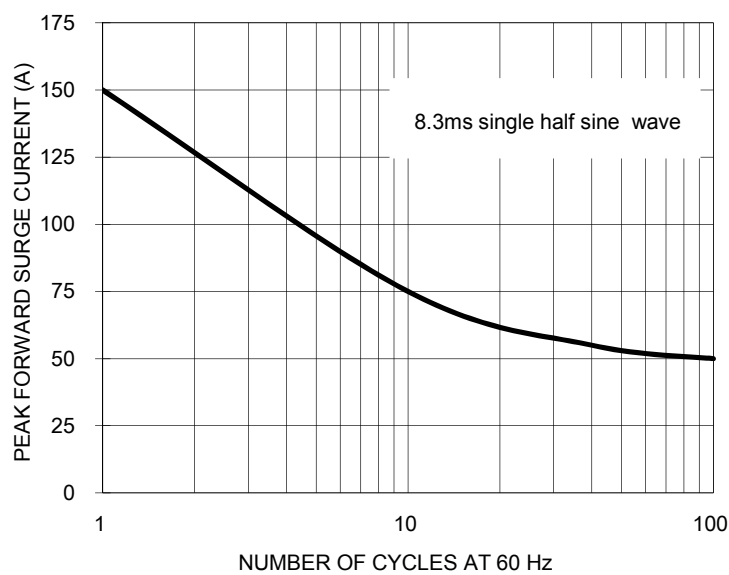


FIG. 4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

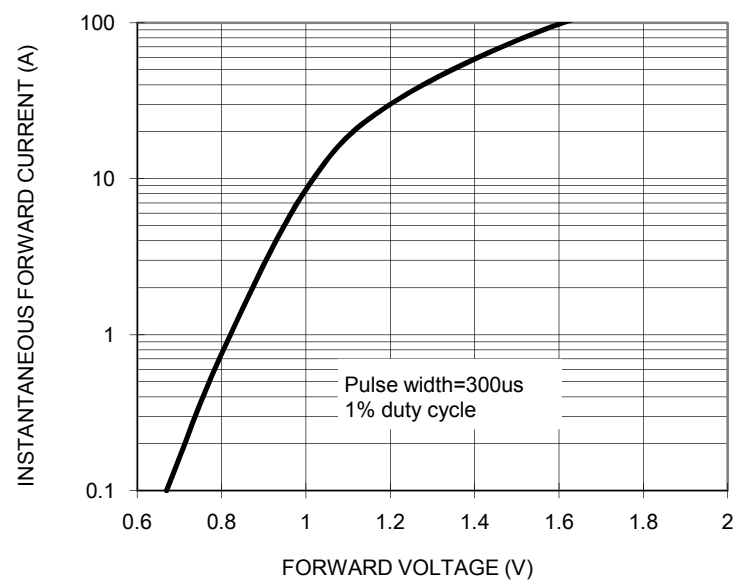
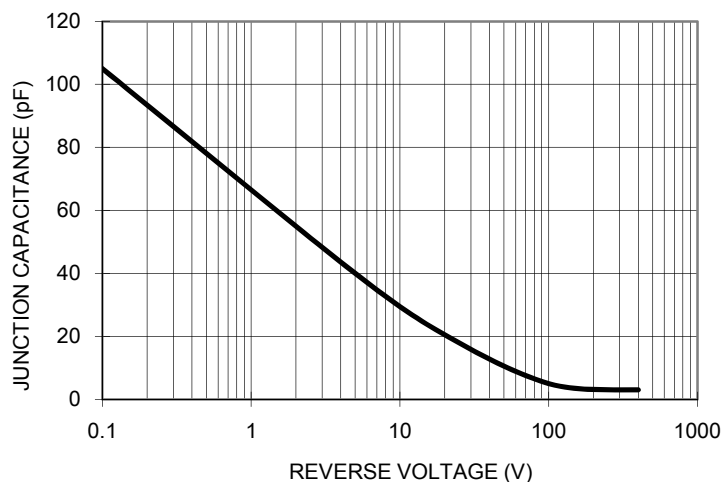
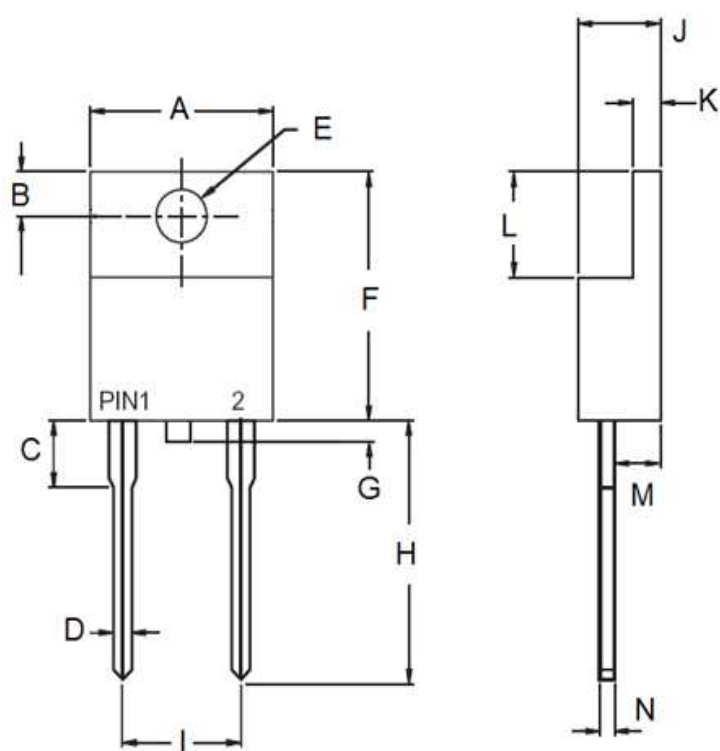




FIG. 5 TYPICAL JUNCTION CAPACITANCE



**PACKAGE OUTLINE DIMENSIONS**  
**TO-220AC**



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	0.00	1.60	0.000	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 = Marking Code  
G = Green Compound  
YWW = Date Code  
F = Factory Code

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