

## 25A, 1000V Glass Passivated Rectifier

### FEATURES

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



### MECHANICAL DATA

**Case:** DO-201AD

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:** Pure tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 2 whisker test

**Weight:** 1.9 g (approximately)

**P2500**

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> =25°C unless otherwise noted)			
PARAMETER	SYMBOL	P2500M	UNIT
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	1000	V
Maximum RMS voltage	V <sub>RMS</sub>	700	V
Maximum DC blocking voltage	V <sub>DC</sub>	1000	V
Maximum average forward rectified current	I <sub>F(AV)</sub>	25	A
Peak forward surge current, 10 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	650	A
Rating for fusing, t<10ms	I <sup>2</sup> t	2100	A <sup>2</sup> s
Maximum instantaneous forward voltage (Note 1) @ 5 A	V <sub>F</sub>	0.87	V
Maximum reverse current @ rated V <sub>R</sub> T <sub>J</sub> =25°C	I <sub>R</sub>	5	μA
Typical thermal resistance	R <sub>θJL</sub>	0.8 (Note 2)	°C/W
		6.0 (Note 3)	
Operating junction temperature range - in DC forward mode	T <sub>J</sub>	- 50 to +175 ≤ 200	°C
Storage temperature range	T <sub>STG</sub>	- 55 to +175	°C

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

Note 2: Thermal resistance from junction to lead/terminal at a distance 0 mm from case.

Note 3: Mount on Heat sink size of 4in x 6in x 0.25in Al-Plate

ORDERING INFORMATION					
PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX <sup>(*)</sup>	PACKAGE	PACKING
P2500M	H	A0	G	P2500	500 / Ammo box
		R0		P2500	800 / 13" Paper reel

\*: Optional available

EXAMPLE					
EXAMPLE P/N	PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
P2500MHA0G	P2500M	H	A0	G	AEC-Q101 qualified Green compound

## RATINGS AND CHARACTERISTICS CURVES

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

FIG.1 FORWARD CURRENT DERATING CURVE

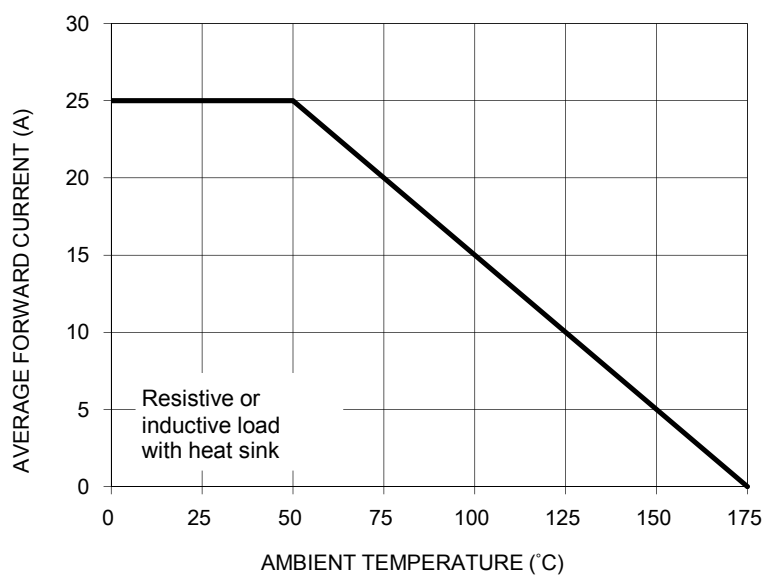


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

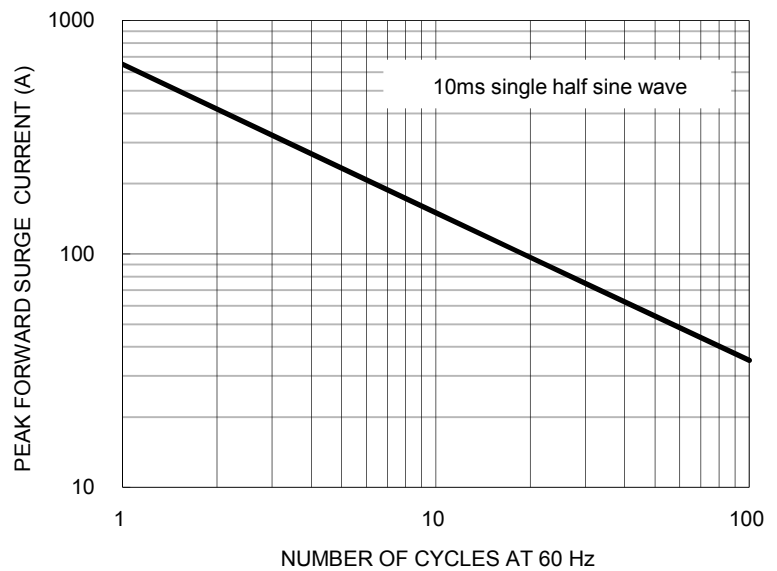


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

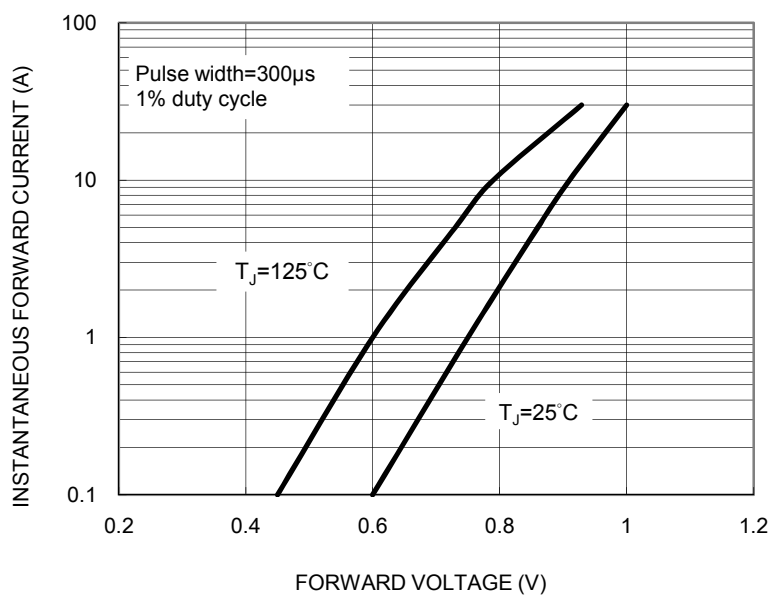


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

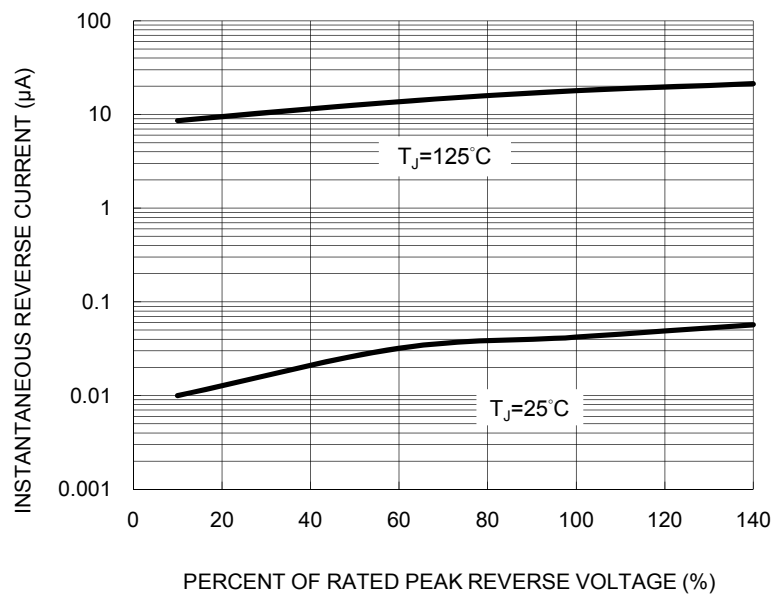
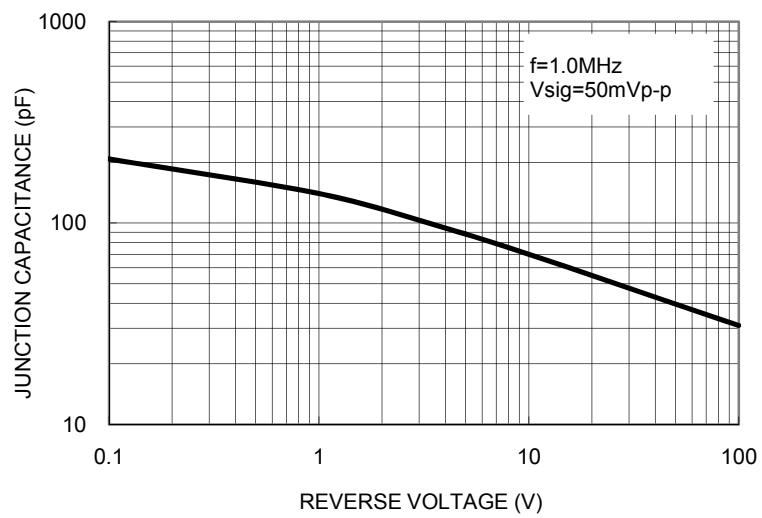
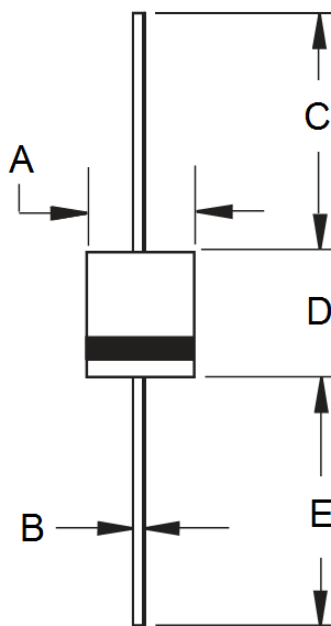


FIG. 5 TYPICAL JUNCTION CAPACITANCE



## PACKAGE OUTLINE DIMENSIONS

### P2500



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	7.8	8.2	0.307	0.323
B	1.2	1.3	0.047	0.051
C	25.4	-	1.000	-
D	7.55	8.05	0.297	0.317
E	25.4	-	1.000	-

## MARKING DIAGRAM



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

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