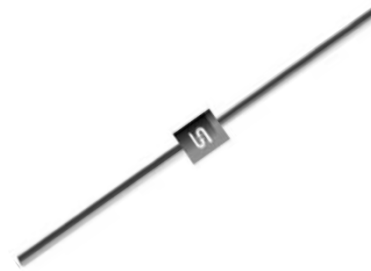


Glass Passivated Rectifiers

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 definition



R-6



MECHANICAL DATA

Case: R-6

Molding compound, UL flammability classification rating 94V-0

Base P/N with suffix "G" on packing code - green compound (halogen-free)

Base P/N with prefix "H" on packing code - AEC-Q101 qualified

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

Meet JESD 201 class 1A whisker test

with prefix "H" on packing code meet JESD 201 class 2 whisker test

Weight: 1.65 g (approximately)

| MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°C unless otherwise noted) | | | | | | | | | |
|--|--------------------|--------------|-----------|-----------|-----------|-----------|-----------|------------|------|
| PARAMETER | SYMBOL | 6A 05G | 6A 10G | 6A 20G | 6A 40G | 6A 60G | 6A 80G | 6A 100G | UNIT |
| Maximum repetitive 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 current | I _{F(AV)} | 6 | | | | | | | A |
| Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load | I _{FSM} | 250 | | | | | | | A |
| Maximum instantaneous forward voltage (Note 1) @ 6 A | V _F | 1.1 | 1.0 | | | | | V | |
| Maximum reverse current @ rated VR | I _R | 10 100 | | | | | | | μA |
| Typical junction capacitance (Note 2) | C _j | 60 | | | | | | | pF |
| Typical thermal resistance | R _{θJA} | 35 | | | | | | | °C/W |
| Operating junction temperature range | T _J | - 55 to +150 | | | | | | | °C |
| Storage temperature range | T _{STG} | - 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 D.C.

| ORDERING INFORMATION | | | | | |
|----------------------|--------------------|--------------|---------------------|---------|------------------------|
| PART NO. | AEC-Q101 QUALIFIED | PACKING CODE | GREEN COMPOUND CODE | PACKAGE | PACKING |
| 6A0xG (Note 1) | Prefix "H" | A0 | Suffix "G" | R-6 | 700 / Ammo box |
| | | R0 | | R-6 | 1,000 / 13" Paper reel |
| | | B0 | | R-6 | 400 / Bulk packing |

Note 1: "x" defines voltage from 50V (6A05G) to 1000V (6A100G)

| EXAMPLE | | | | | |
|---------------|----------|--------------------|--------------|---------------------|--------------------|
| PREFERRED P/N | PART NO. | AEC-Q101 QUALIFIED | PACKING CODE | GREEN COMPOUND CODE | DESCRIPTION |
| 6A05G A0 | 6A05G | | A0 | | |
| 6A05G A0G | 6A05G | | A0 | G | Green compound |
| 6A05GHA0 | 6A05G | H | A0 | | AEC-Q101 qualified |

RATINGS AND CHARACTERISTICS CURVES

(TA=25°C unless otherwise noted)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

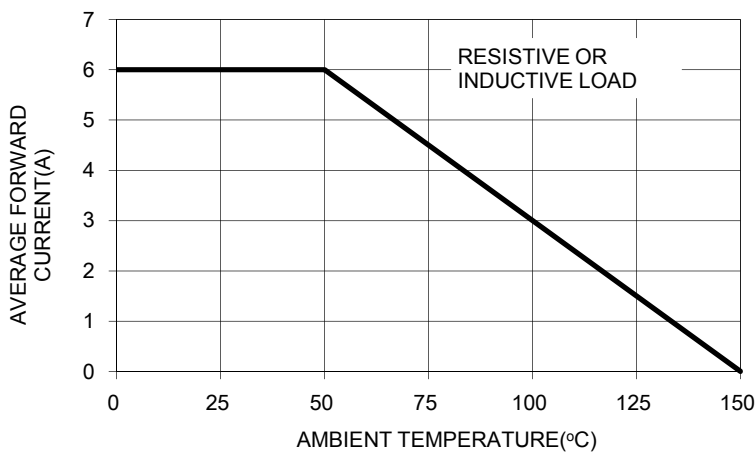


FIG. 2- TYPICAL REVERSE CHARACTERISTICS

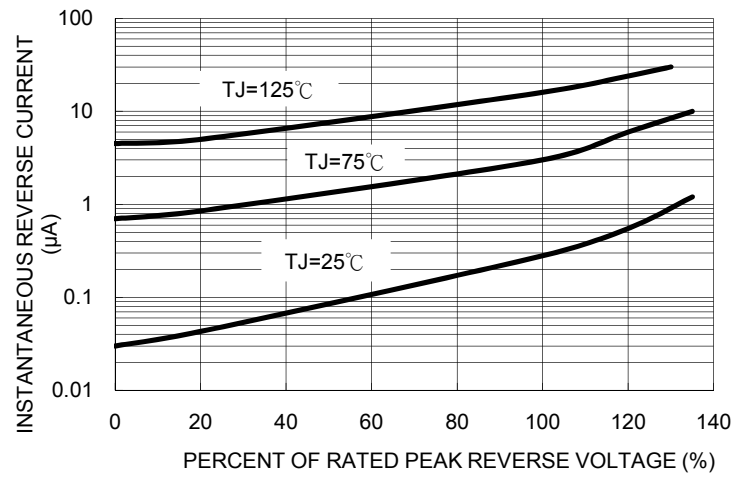


FIG. 3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



FIG. 4- TYPICAL FORWARD CHARACTERISTICS

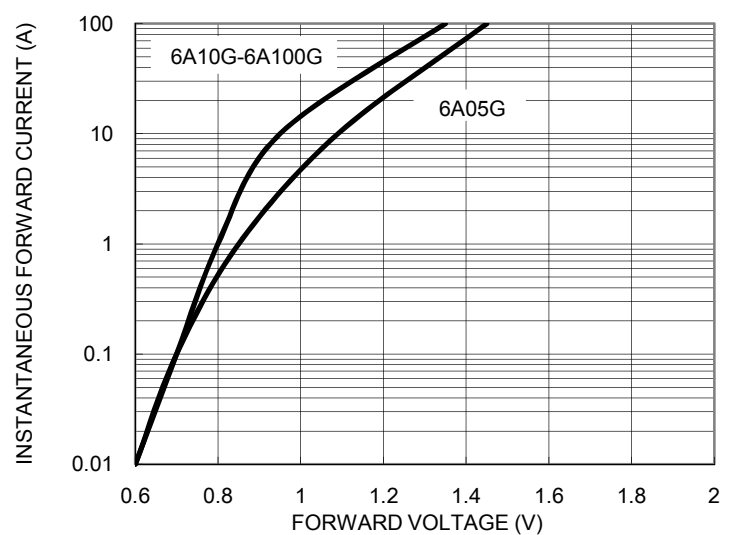
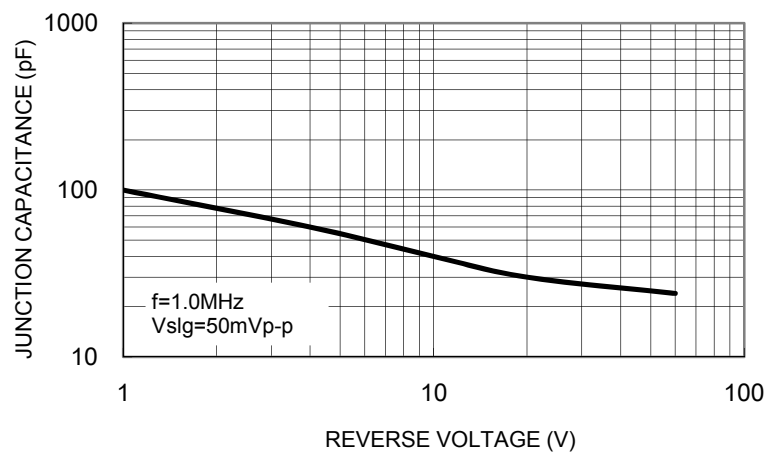
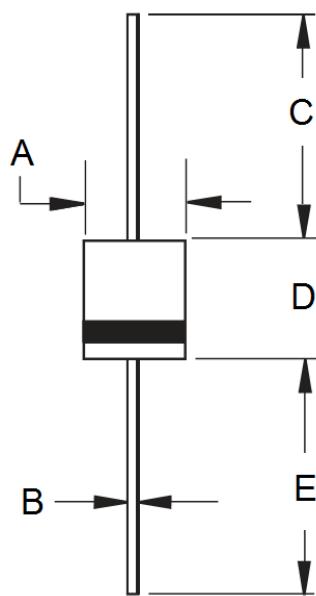


FIG. 5- TYPICAL JUNCTION CAPACITANCE

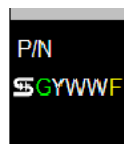


PACKAGE OUTLINE DIMENSIONS



| DIM. | Unit (mm) | | Unit (inch) | |
|------|-----------|------|-------------|-------|
| | Min | Max | Min | Max |
| A | 6.80 | 7.20 | 0.268 | 0.283 |
| B | 1.20 | 1.30 | 0.047 | 0.051 |
| C | 25.40 | - | 1.000 | - |
| D | 8.60 | 9.10 | 0.339 | 0.358 |
| E | 25.40 | - | 1.000 | - |

MARKING DIAGRAM



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

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