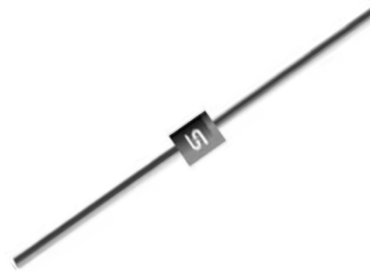


## Glass Passivated High Efficient Rectifiers

**FEATURES**

- Glass passivated chip junction
- High efficiency, Low VF
- High current capability
- 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


**DO-204AC (DO-15)**
**MECHANICAL DATA**
**Case:** DO-204AC (DO-15)

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:** 0.4g (approximately)

| MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> =25°C unless otherwise noted) |                    |              |          |          |          |          |          |          |          |      |    |
|--|--------------------|--------------|----------|----------|----------|----------|----------|----------|----------|------|----|
| PARAMETER  | SYMBOL             | HER 201G     | HER 202G | HER 203G | HER 204G | HER 205G | HER 206G | HER 207G | HER 208G | UNIT |    |
| Maximum repetitive peak reverse voltage  | V <sub>RRM</sub>   | 50           | 100      | 200      | 300      | 400      | 600      | 800      | 1000     | V    |    |
| Maximum RMS voltage  | V <sub>RMS</sub>   | 35           | 70       | 140      | 210      | 280      | 420      | 560      | 700      | V    |    |
| Maximum DC blocking voltage  | V <sub>DC</sub>    | 50           | 100      | 200      | 300      | 400      | 600      | 800      | 1000     | V    |    |
| Maximum average forward rectified current  | I <sub>F(AV)</sub> | 2            |          |          |          |          |          |          |          | A    |    |
| Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load          | I <sub>FSM</sub>   | 60           |          |          |          |          |          |          |          | A    |    |
| Maximum instantaneous forward voltage (Note 1) @ 2 A   | V <sub>F</sub>     | 1.0          |          |          | 1.3      |          | 1.7      |          |          | V    |    |
| Maximum reverse current @ rated VR T <sub>J</sub> =25 °C<br>T <sub>J</sub> =125 °C           | I <sub>R</sub>     | 5<br>150     |          |          |          |          |          |          |          | μA   |    |
| Maximum reverse recovery time (Note 2)   | T <sub>rr</sub>    | 50           |          |          |          |          | 75       |          |          |      | ns |
| Typical junction capacitance (Note 3)  | C <sub>j</sub>     | 35           |          |          |          |          | 20       |          |          |      | pF |
| Typical thermal resistance   | R <sub>θJA</sub>   | 60           |          |          |          |          |          |          |          | °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=300 μs, 1% duty cycle

Note 2: Reverse Recovery Test Conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>RR</sub>=0.25A

Note 3: 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                |
| HER20xG (Note 1)     | Prefix "H"         | A0           | Suffix "G"          | DO-15   | 1,500 / Ammo box       |
|                      |                    | R0           |                     | DO-15   | 3,500 / 13" Paper reel |
|                      |                    | B0           |                     | DO-15   | 1,000 / Bulk packing   |

Note 1: "x" defines voltage from 50V (HER201G) to 1000V (HER208G)

| EXAMPLE       |          |                    |              |                     |                    |
|---------------|----------|--------------------|--------------|---------------------|--------------------|
| PREFERRED P/N | PART NO. | AEC-Q101 QUALIFIED | PACKING CODE | GREEN COMPOUND CODE | DESCRIPTION        |
| HER201G A0    | HER201G  |                    | A0           |                     |                    |
| HER201G A0G   | HER201G  |                    | A0           | G                   | Green compound     |
| HER201GHA0    | HER201G  | H                  | A0           |                     | AEC-Q101 qualified |

**RATINGS AND CHARACTERISTICS CURVES**

(TA=25°C unless otherwise noted)

FIG. 1- MAXIMUM FORWARD CURRENT DERATING CURVE

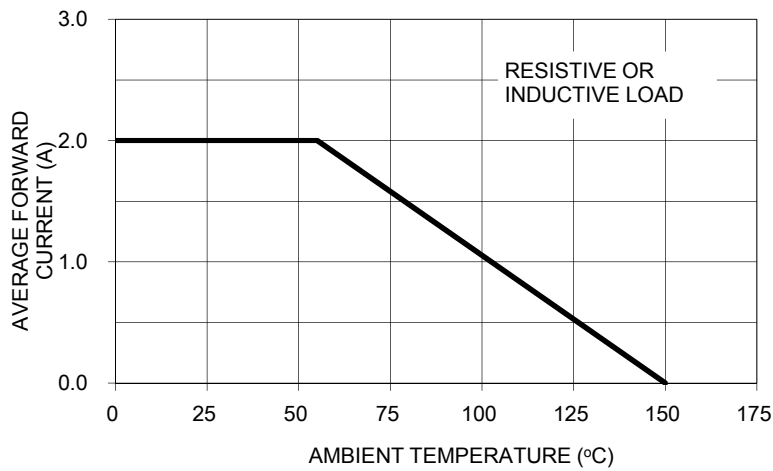


FIG. 2- TYPICAL REVERSE CHARACTERISTICS

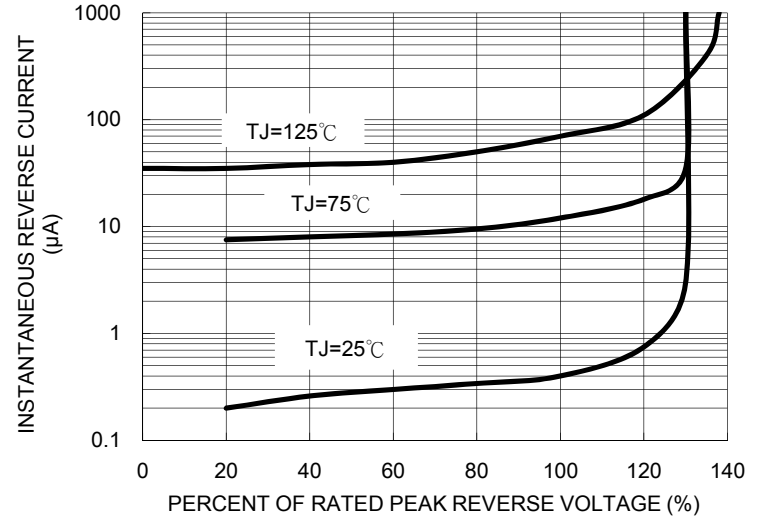


FIG. 3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

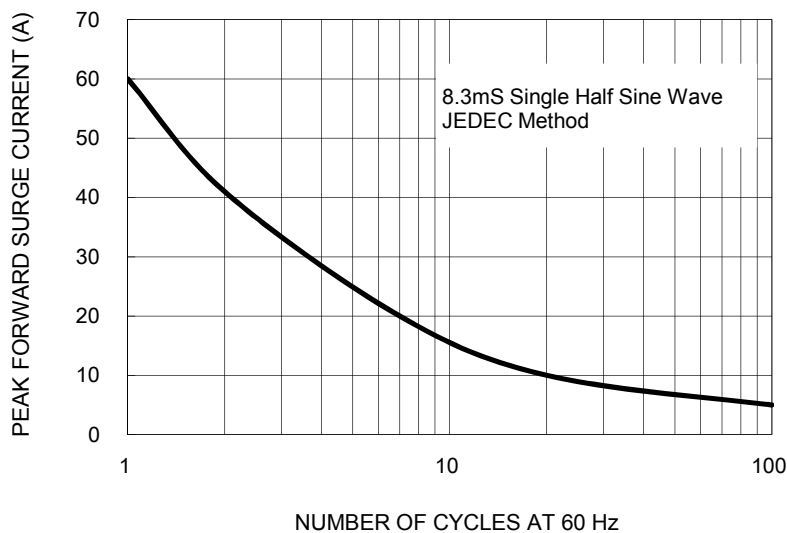


FIG. 5- TYPICAL FORWARD CHARACTERISTICS

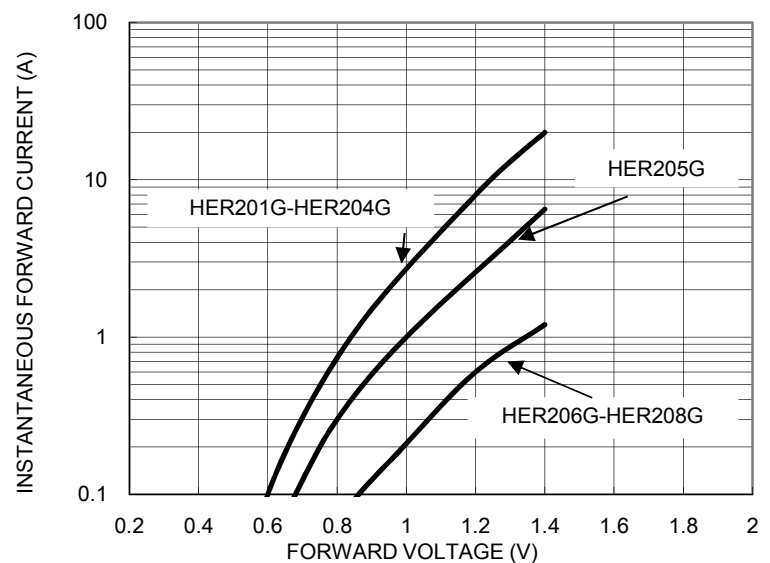


FIG. 5- TYPICAL JUNCTION CAPACITANCE

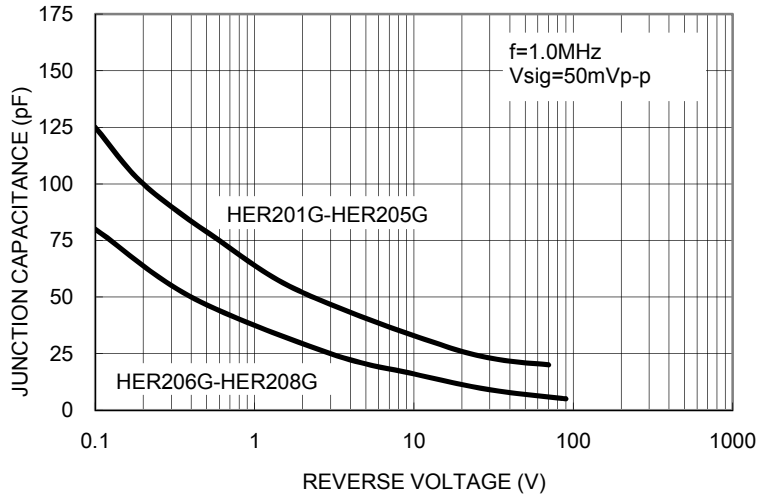
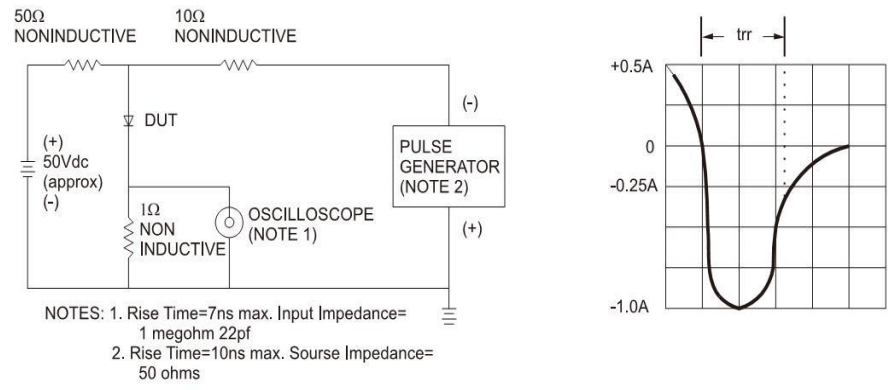
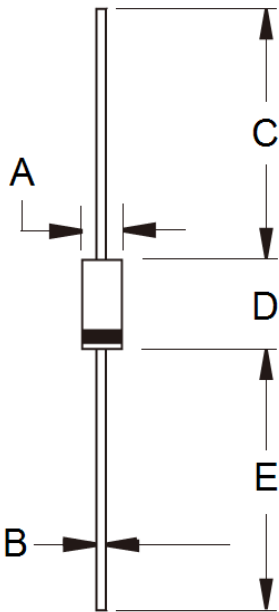


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



PACKAGE OUTLINE DIMENSIONS



| DIM. | Unit (mm) |      | Unit (inch) |       |
|------|-----------|------|-------------|-------|
|      | Min       | Max  | Min         | Max   |
| A    | 2.60      | 3.60 | 0.102       | 0.142 |
| B    | 0.70      | 0.90 | 0.028       | 0.035 |
| C    | 25.40     | -    | 1.000       | -     |
| D    | 5.80      | 7.60 | 0.228       | 0.299 |
| 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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