

- 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 definition



MECHANICAL DATA

Case: R-6

R-6

Molding compound, UL flammability classification rating 94V-0

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

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

Meet JESD 201 class 1A whisker test

Weight: 1.65 g (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

| PARAMETER | SYMBOL | HER 601G | HER 602G | HER 603G | HER 604G | HER 605G | 606G |
|---|--------------------|--------------|----------|----------|----------|----------|------|
| Maximum repetitive peak reverse voltage | V _{RRM} | 50 | 100 | 200 | 300 | 400 | 600 |
| Maximum RMS voltage | V _{RMS} | 35 | 70 | 140 | 210 | 280 | 420 |
| Maximum DC blocking voltage | V _{DC} | 50 | 100 | 200 | 300 | 400 | 600 |
| Maximum average forward rectified current | I _{F(AV)} | 6 | | | | | |
| Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load | I _{FSM} | 150 | | | | | |
| Maximum instantaneous forward voltage (Note 1) @ 6 A | V _F | 1.0 | | | | 1.3 | |
| Maximum reverse current @ rated VR T _J =25 °C T _J =125 °C | I _R | 10 | | | | 200 | |
| Maximum reverse recovery time (Note 2) | t _{rr} | 50 | | | | | |
| Typical junction capacitance (Note 2) | C _j | 80 | | | | | |
| Typical thermal resistance | R _{θJA} | 37 | | | | | |
| Operating junction temperature range | T _J | - 55 to +150 | | | | | |
| Storage temperature range | T _{STG} | - 55 to +150 | | | | | |

Note 1: Pulse Test with PW=300µs, 1% Duty Cycle

Note 2: Reverse Recovery Test Conditions: IF=0.5A, IR=1.0A, IRR=0.25A

Note 3: Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.

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Note 1: "x" defines voltage from 50V (HER601G) to 600V (HER606G)

EXAMPLE

| PREFERRED P/N | PART NO. | PACKING CODE | GREEN COMPOUND CODE | DESCRIPTION |
|---------------|----------|--------------|---------------------|-------------|
| HER605G A0 | HER605G | A0 | | |
| HER605G A0G | HER605G | A0 | G | Green com |

RATINGS AND CHARACTERISTICS CURVES

(TA=25°C unless otherwise noted)

FIG. 1 MAXIMUM FORWARD CURRENT DERATING CURVE

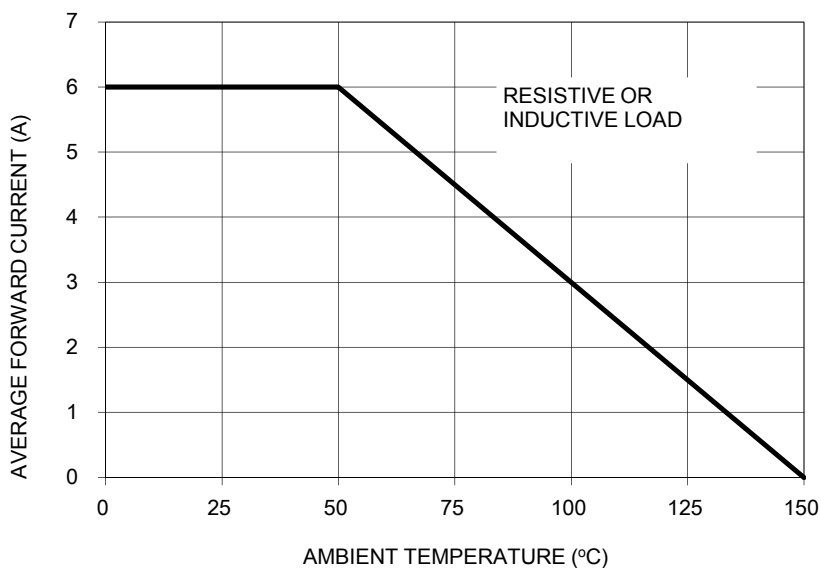


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

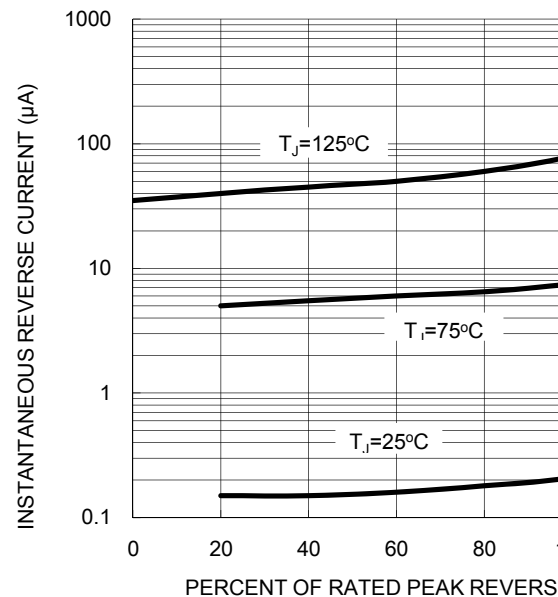


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

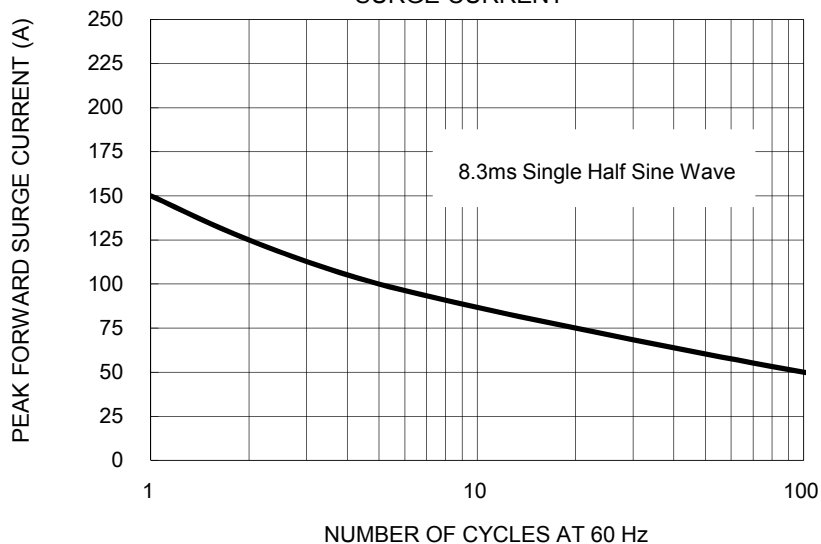
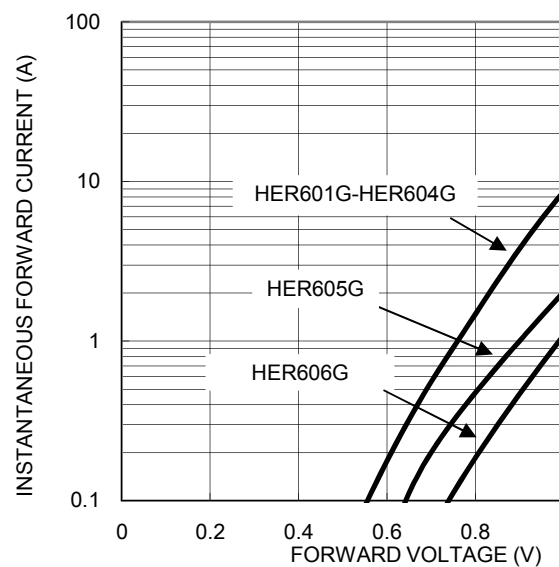
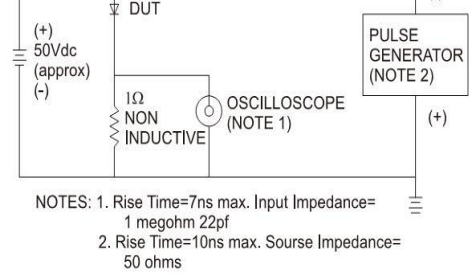
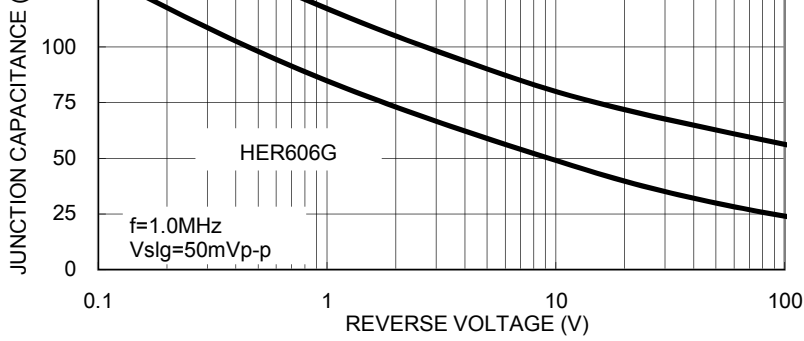


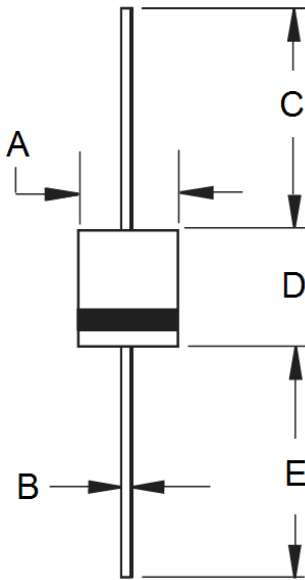
FIG. 4 TYPICAL FORWARD CHARACTERISTICS





PACKAGE OUTLINE DIMENSIONS

R-6



| 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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