



Silicon Rectifiers

FEATURES

- High efficiency, low VF
- High current capability
- 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



Case: A-405

Molding compound, UL flammability classification rating 94V-0 Base P/N with suffix "G" on packing code - halogen-free **Terminal:** Matte tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 1A whisker test

Weight: 0.2g (approximately)







| MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°ℂ unless otherwise noted) | | | | | | | | | |
|--|--------------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|------|
| PARAMETER | SYMBOL | 1N 4001S | 1N 4002S | 1N 4003S | 1N 4004S | 1N 4005S | 1N 4006S | 1N 4007S | 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)} | 1 | | | | Α | | | |
| Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load | I _{FSM} | 30 | | | | А | | | |
| Maximum instantaneous forward voltage (Note 1) @ 1 A | V _F | 1.0 | | | | | V | | |
| Maximum reverse current @ rated VR T_J =25 $^{\circ}$ C T_J =125 $^{\circ}$ C | I _R | 5 50 | | | | μΑ | | | |
| Typical junction capacitance (Note 2) | Cj | 15 | | | | pF | | | |
| Typical thermal resistance | $R_{\theta JA}$ | 50 | | | | °C/W | | | |
| Operating junction temperature range | T _J | - 55 to +150 | | | | οС | | | |
| Storage temperature range | T _{STG} | - 55 to +150 | | | οС | | | | |

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

Note 2: Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.

Document Number: DS_D1402005



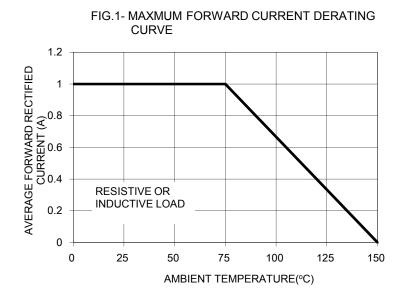
| ORDERING INFORMATION | | | | | | |
|----------------------|--------------|----------------|---------|-------------------|--|--|
| PART NO. | PACKING CODE | GREEN COMPOUND | PACKAGE | PACKING | | |
| | | CODE | | | | |
| 1N400xS (Note 1) | P0 | Suffix "G" | A-405 | 2K / AMMO box | | |
| | P1 | | A-405 | 2K / AMMO box | | |
| | A1 | | A-405 | 3K / AMMO box | | |
| | A0 | | A-405 | 3K / AMMO box | | |
| | R0 | | A-405 | 5K / 13" Reel | | |
| | В0 | | A-405 | 1K / Bulk packing | | |

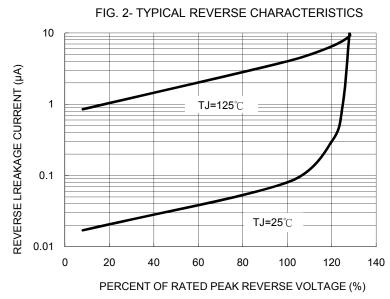
Note 1: "x" defines voltage from 50V (1N4001S) to 1000V (1N4007S)

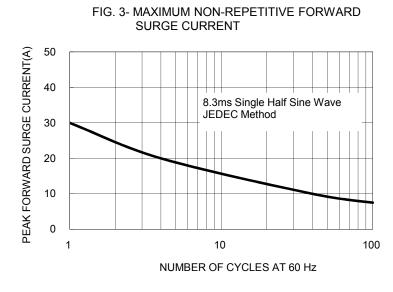
| EXAMPLE | | | | | | | |
|---------------|----------|--------------|---------------------|----------------|--|--|--|
| PREFERRED P/N | PART NO. | PACKING CODE | GREEN COMPOUND CODE | DESCRIPTION | | | |
| 1N4007S A0 | 1N4007S | A0 | | | | | |
| 1N4007S A0G | 1N4007S | A0 | G | Green compound | | | |

RATINGS AND CHARACTERISTICS CURVES

(TA=25°C unless otherwise noted)







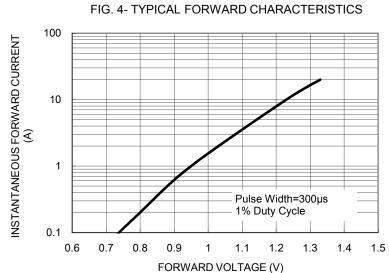
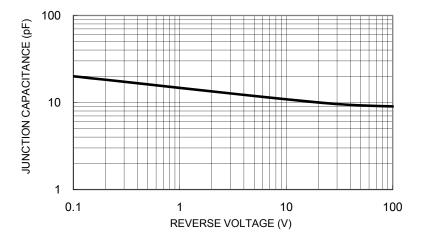
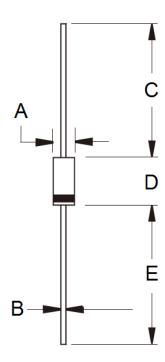




FIG. 5- TYPICAL JUNCTION CAPACITANCE



PACKAGE OUTLINE DIMENSIONS



| DIM. | Unit | (mm) | Unit (inch) | | | |
|--------|-------|------|-------------|-------|--|--|
| DIIVI. | Min | Max | Min | Max | | |
| Α | 2.00 | 2.70 | 0.079 | 0.106 | | |
| В | 0.53 | 0.64 | 0.021 | 0.025 | | |
| С | 25.40 | - | 1.000 | - | | |
| D | 4.20 | 5.20 | 0.165 | 0.205 | | |
| Е | 25.40 | - | 1.000 | - | | |

MARKING DIAGRAM



P/N = Specific Device Code G = Green Compound

YWW = Date Code F = Factory Code

Document Number: DS_D1402005





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Document Number: DS_D1401031 Version: E14