

3A, 50V - 1000V 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


DO-201AD

MECHANICAL DATA

Case: DO-201AD

Molding compound, UL flammability classification rating 94V-0

Packing code with suffix "G" means green compound (halogen-free)

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

Meet JESD 201 class 1A whisker test

Weight: 1.2 g (approximately)

| MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°C unless otherwise noted) | | | | | | | | | |
|--|--------------------|---|------------|------------|------------|------------|------------|------------|------------------|
| PARAMETER | SYMBOL | 1N 5400 | 1N 5401 | 1N 5402 | 1N 5404 | 1N 5406 | 1N 5407 | 1N 5408 | 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)} | 3 | | | | | | | A |
| Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load | I _{FSM} | 200 | | | | | | | A |
| Rating for fusing (t<8.3ms) | I ² t | 166 | | | | | | | A ² s |
| Maximum instantaneous forward voltage (Note 1) @ 3 A | V _F | 1.0 | | | | | | | V |
| Maximum reverse current @ rated V _R | I _R | 5 100 | | | | | | | μA |
| | | T _J =25°C T _J =125°C | | | | | | | |
| Typical junction capacitance (Note 2) | C _J | 50 | | | | | | | pF |
| Typical thermal resistance | R _{θJA} | 40 | | | | | | | °C/W |
| Operating junction temperature range | T _J | - 55 to +150 | | | | | | | °C |
| Storage temperature range | T _{STG} | - 55 to +150 | | | | | | | °C |

Note1: Pulse Test with PW=300μs, 1% Duty Cycle

Note2: Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.

| ORDERING INFORMATION | | | | |
|----------------------|--------------|-------------------------|----------|------------------------|
| PART NO. | PACKING CODE | PACKING CODE SUFFIX (*) | PACKAGE | PACKING |
| 1N540x (Note 1) | A0 | G | DO-201AD | 500 / Ammo box |
| | R0 | | DO-201AD | 1,250 / 13" Paper reel |
| | B0 | | DO-201AD | 500 / Bulk packing |

Note 1: "x" defines voltage from 50V (1N5400) to 1000V (1N5408)

*: Optional available

| EXAMPLE | | | | |
|---------------|----------|--------------|---------------------|----------------|
| PREFERRED P/N | PART NO. | PACKING CODE | PACKING CODE SUFFIX | DESCRIPTION |
| 1N5408 A0G | 1N5408 | A0 | G | Green compound |

RATINGS AND CHARACTERISTICS CURVES

(T_A=25°C unless otherwise noted)

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

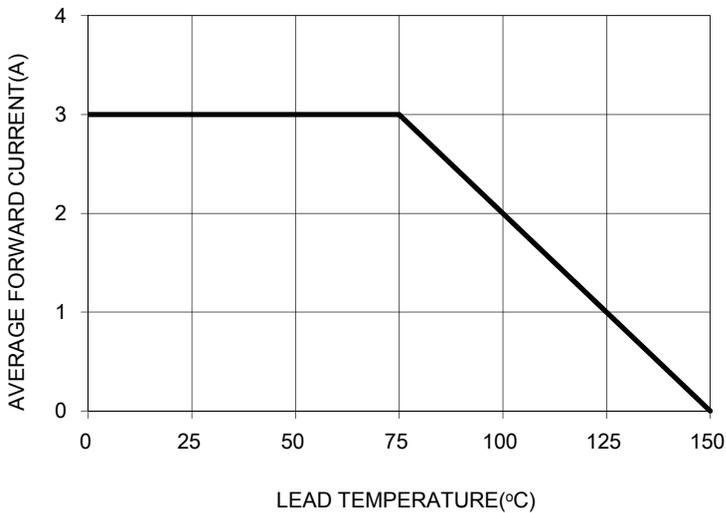


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

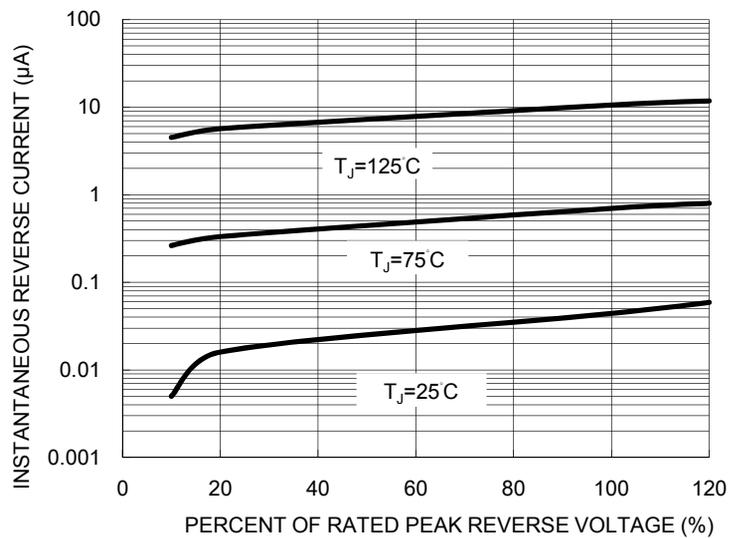


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

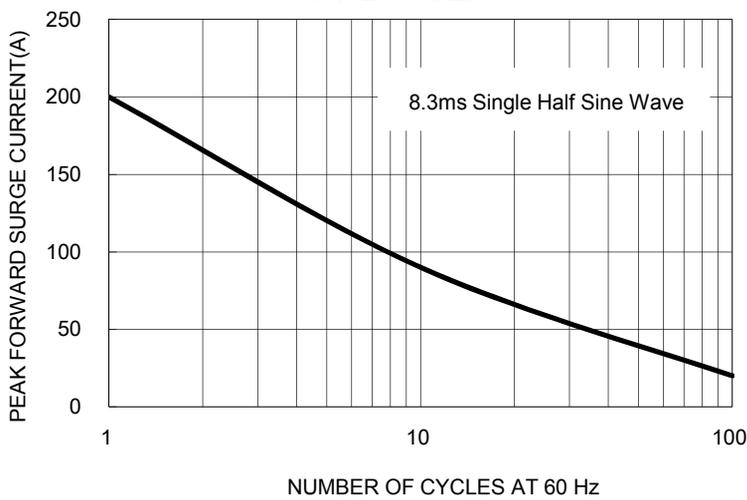
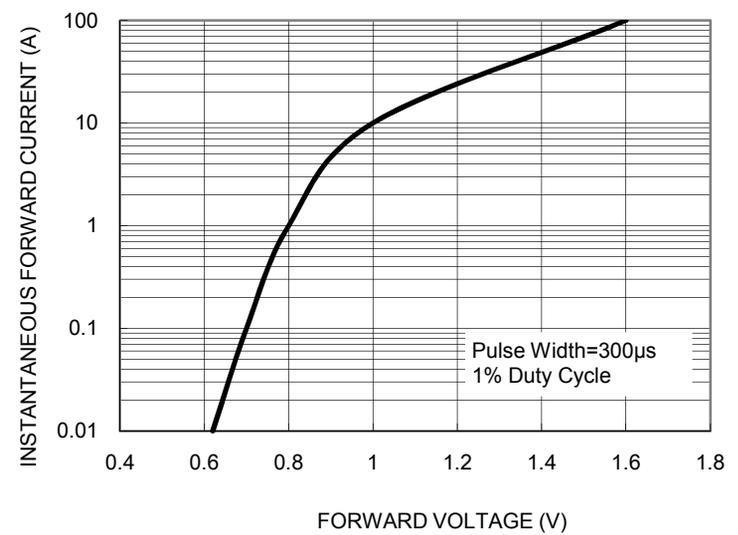
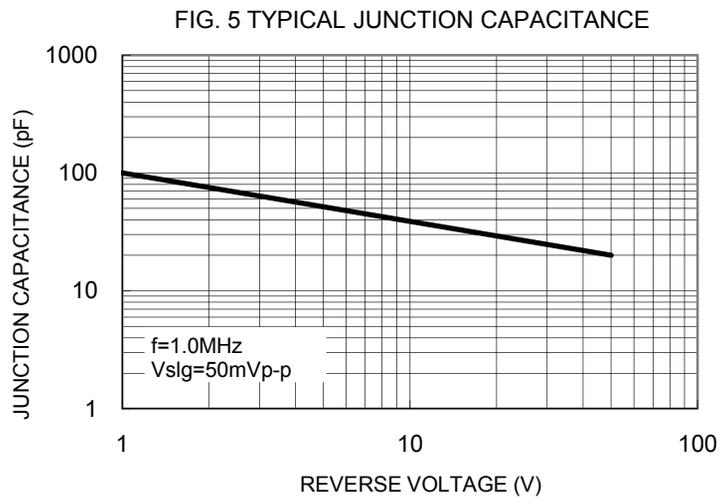


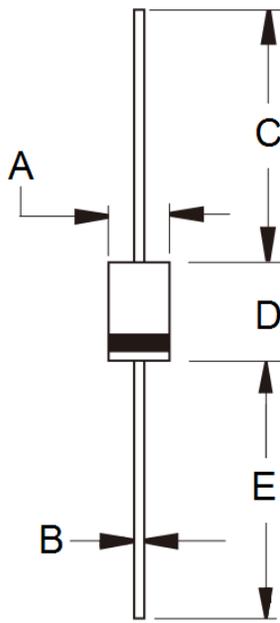
Fig. 4 TYPICAL FORWARD CHARACTERISTICS





PACKAGE OUTLINE DIMENSIONS

DO-201AD



| DIM. | Unit (mm) | | Unit (inch) | |
|------|-----------|------|-------------|-------|
| | Min | Max | Min | Max |
| A | 5.00 | 5.60 | 0.197 | 0.220 |
| B | 1.20 | 1.30 | 0.048 | 0.052 |
| C | 25.40 | - | 1.000 | - |
| D | 8.50 | 9.50 | 0.335 | 0.375 |
| 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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