

Maximum Ratings (@T_A = +25°C, unless otherwise specified.)

| Characteristic | Symbol | Value | Units |
|----------------------------|------------------|------------|-------|
| Drain-Source Voltage | V _{DSS} | 60 | V |
| Gate-Source Voltage | V _{GSS} | ±20 | V |
| Drain Current (Note 6) | I _D | 300 800 | mA |
| Continuous Pulsed (Note 7) | | | |

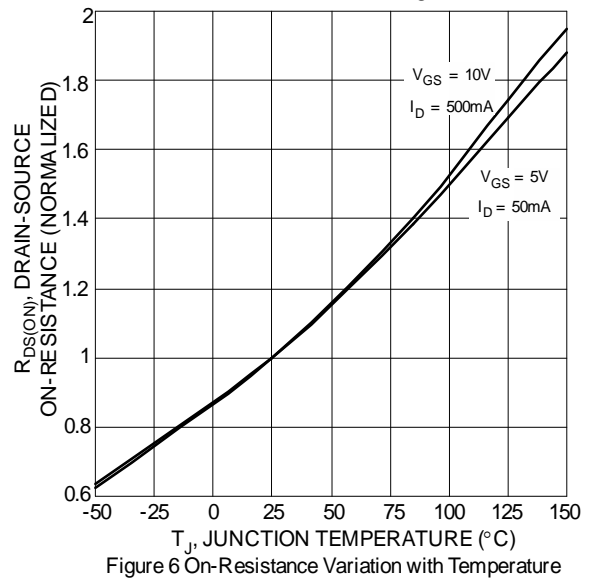
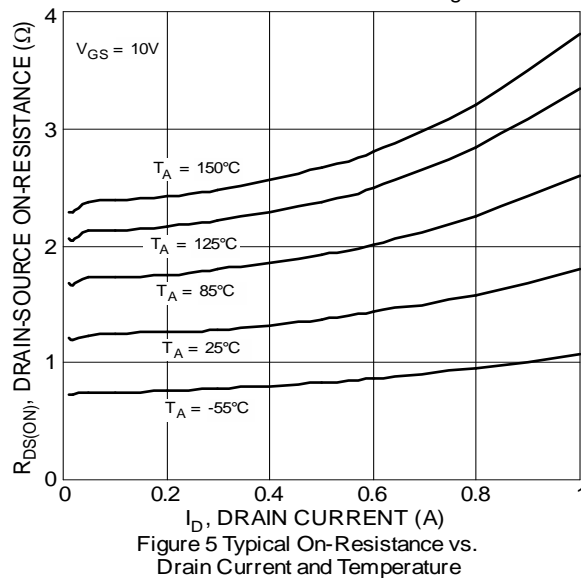
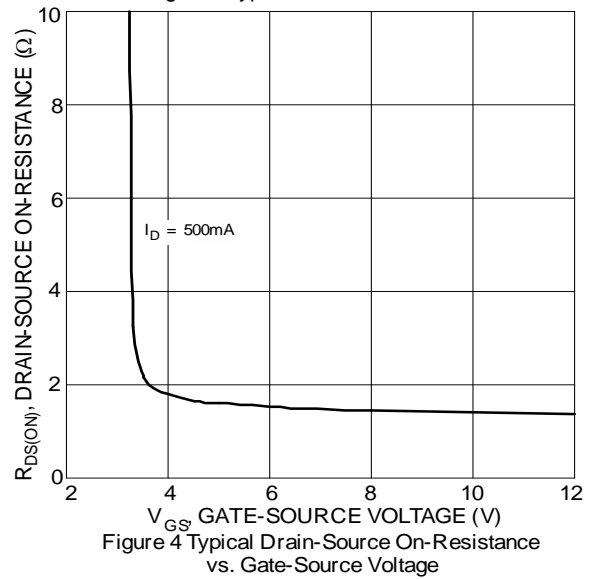
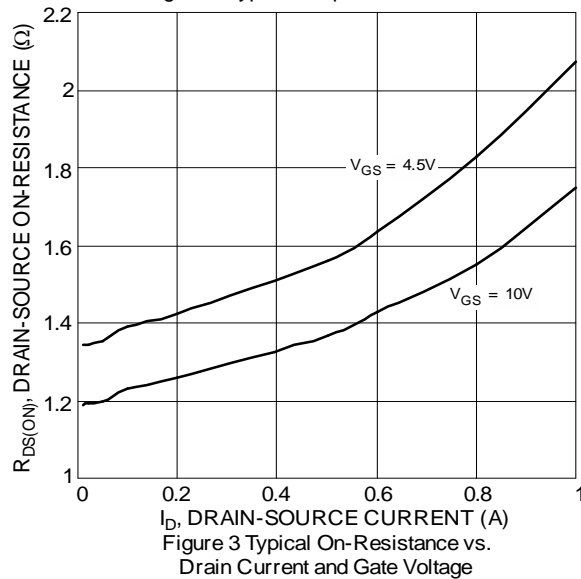
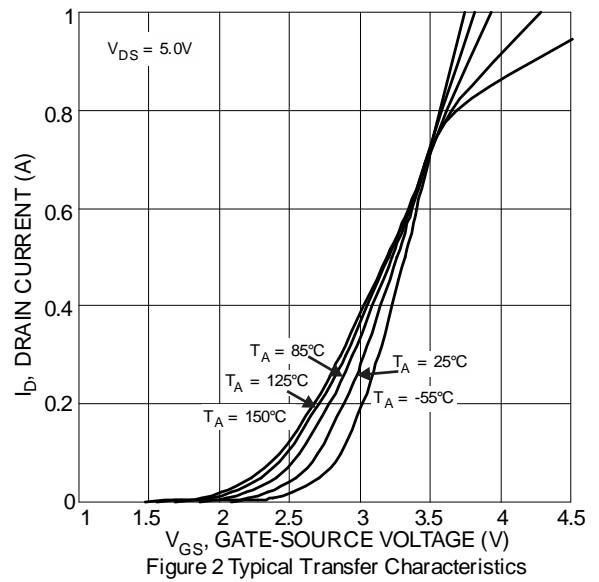
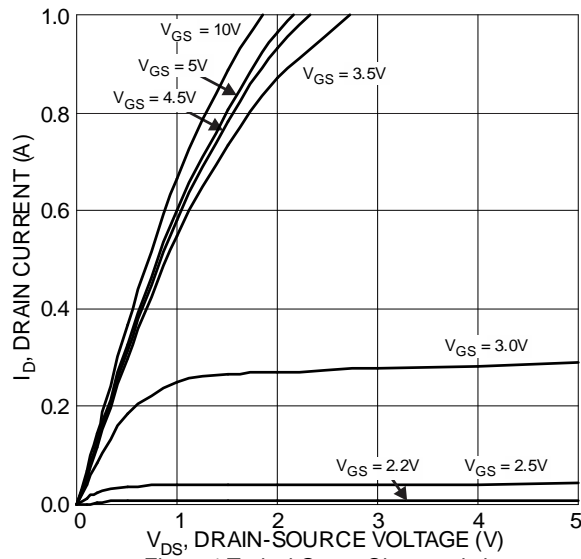
Thermal Characteristics (@T_A = +25°C, unless otherwise specified.)

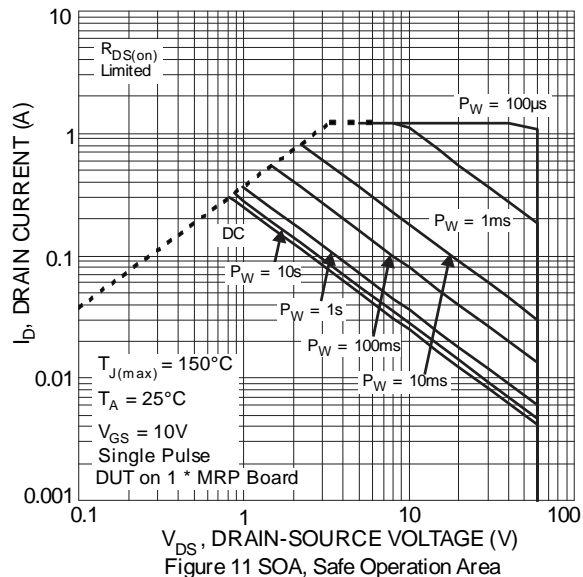
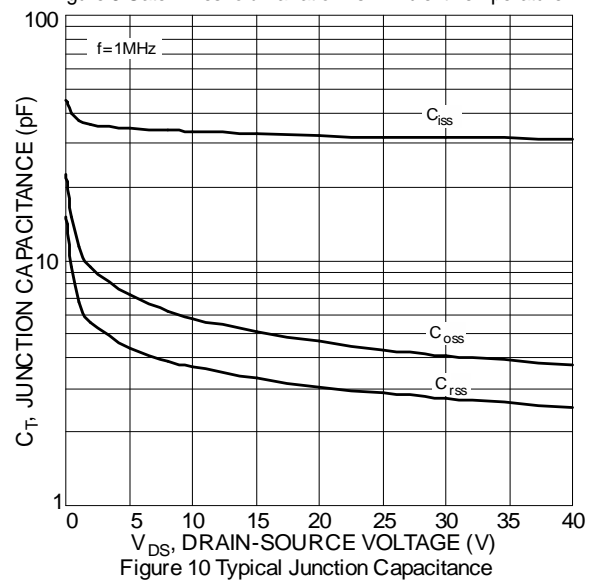
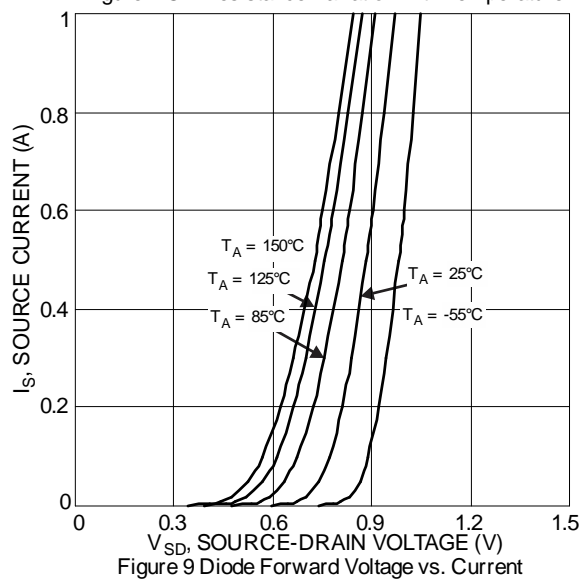
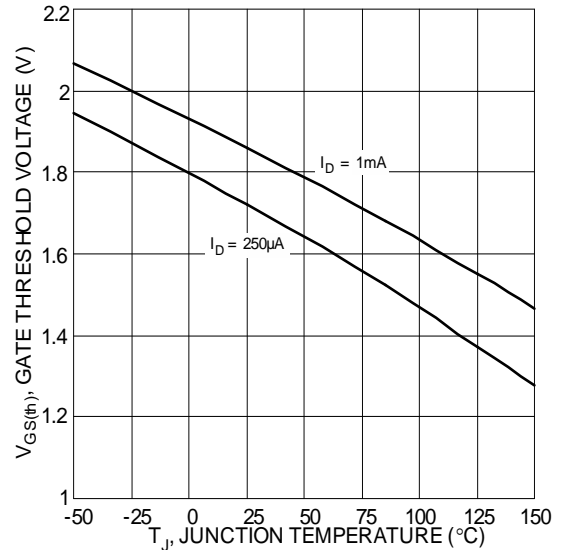
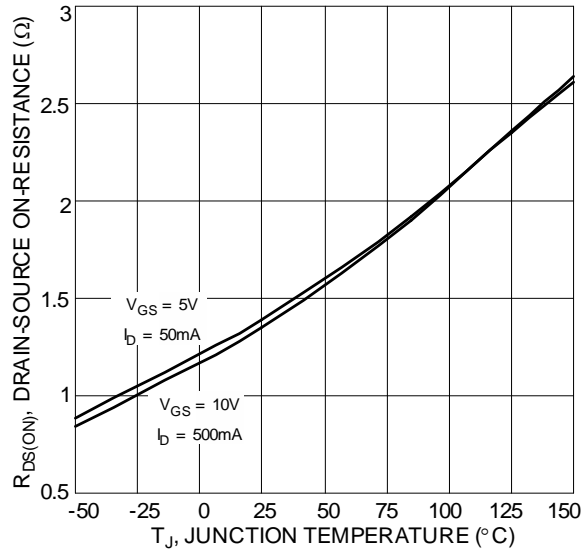
| Characteristic | Symbol | Value | Units |
|---|-----------------------------------|-------------|-------|
| Total Power Dissipation (Note 6) | P _D | 200 | mW |
| Thermal Resistance, Junction to Ambient | R _{θJA} | 625 | °C/W |
| Operating and Storage Temperature Range | T _J , T _{STG} | -65 to +150 | °C |

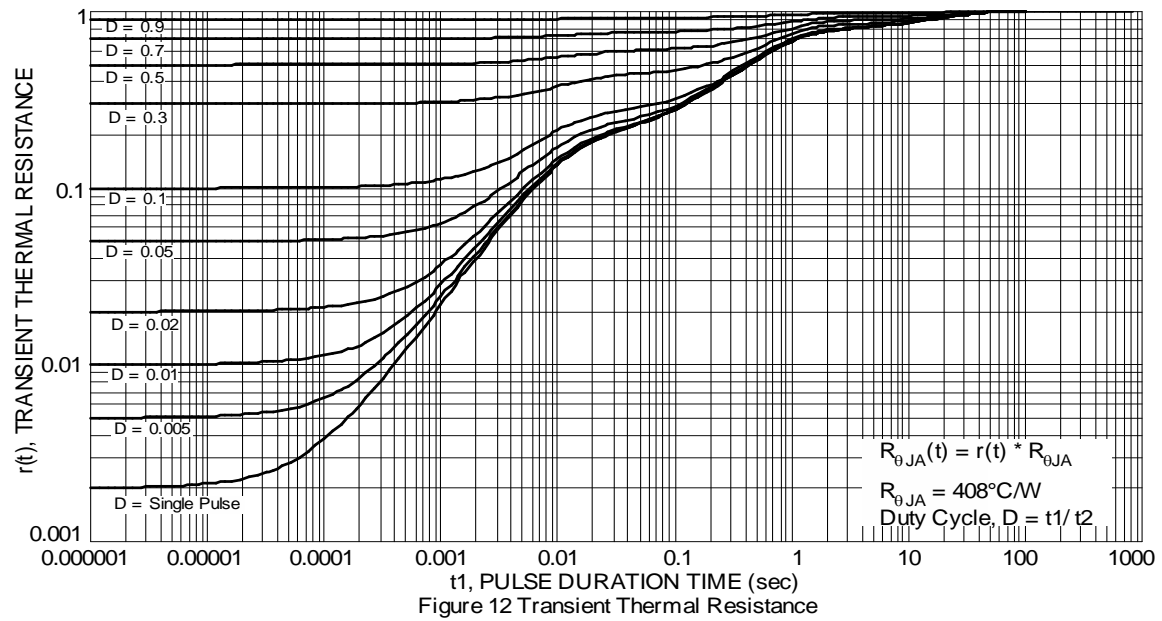
Electrical Characteristics (@T_A = +25°C, unless otherwise specified.)

| Characteristic | Symbol | Min | Typ | Max | Unit | Test Condition |
|---|---------------------|-----|-----|-----|------|---|
| OFF CHARACTERISTICS (Note 8) | | | | | | |
| Drain-Source Breakdown Voltage | BV _{DSS} | 60 | — | — | V | V _{GS} = 0V, I _D = 10μA |
| Zero Gate Voltage Drain Current | I _{DSS} | — | — | 1.0 | μA | V _{DS} = 60V, V _{GS} = 0V |
| Gate-Source Leakage | I _{GSS} | — | — | ±10 | μA | V _{GS} = ±20V, V _{DS} = 0V |
| ON CHARACTERISTICS (Note 8) | | | | | | |
| Gate Threshold Voltage | V _{GS(TH)} | 1.0 | 1.6 | 2.5 | V | V _{DS} = 10V, I _D = 1mA |
| Static Drain-Source On-Resistance | R _{DS(ON)} | — | — | 2.0 | Ω | V _{GS} = 10V, I _D = 0.5A |
| | | — | — | 3.0 | | V _{GS} = 4.5V, I _D = 0.2A |
| Forward Transfer Admittance | Y _{FS} | 80 | — | — | ms | V _{DS} = 10V, I _D = 0.2A |
| DYNAMIC CHARACTERISTICS (Note 9) | | | | | | |
| Input Capacitance | C _{ISS} | — | — | 50 | pF | V _{DS} = 25V, V _{GS} = 0V, f = 1.0MHz |
| Output Capacitance | C _{OSS} | — | — | 25 | pF | |
| Reverse Transfer Capacitance | C _{RSS} | — | — | 5.0 | pF | |

- Notes:
- Device mounted on FR-4 PCB.
 - Pulse width ≤10μs, Duty Cycle ≤1%.
 - Short duration pulse test used to minimize self-heating effect.
 - Guaranteed by design. Not subject to production testing.



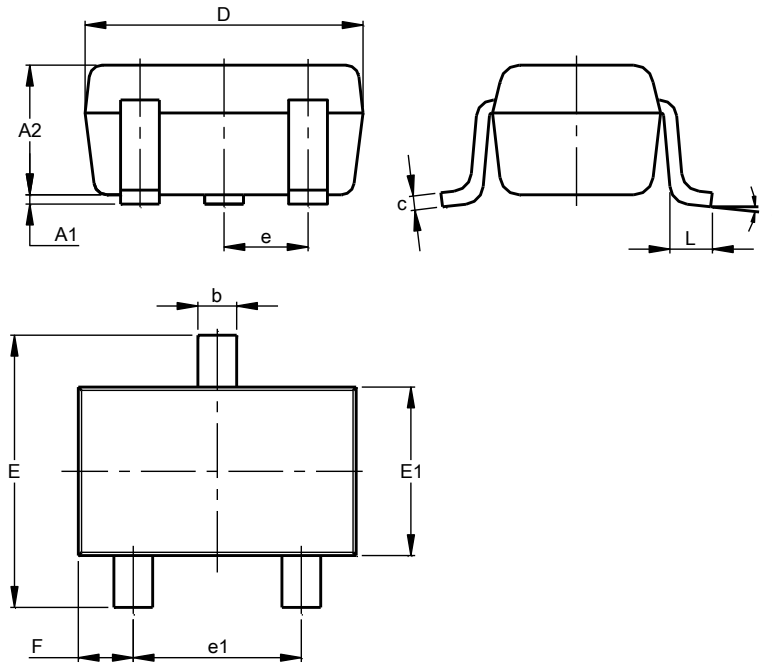




Package Outline Dimensions

Please see AP02001 at http://www.diodes.com/_files/datasheets/ap02001.pdf for the latest version.

SOT323

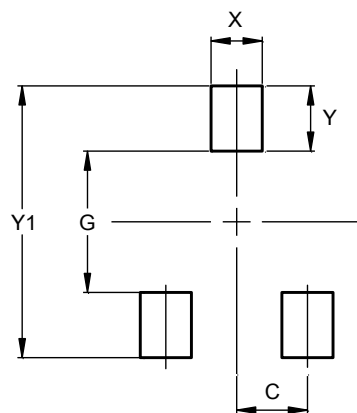


| SOT323 | | | |
|----------------------|-----------|-------|-------|
| Dim | Min | Max | Typ |
| A1 | 0.00 | 0.10 | 0.05 |
| A2 | 0.90 | 1.00 | 0.95 |
| b | 0.25 | 0.40 | 0.30 |
| c | 0.10 | 0.18 | 0.11 |
| D | 1.80 | 2.20 | 2.15 |
| E | 2.00 | 2.20 | 2.10 |
| E1 | 1.15 | 1.35 | 1.30 |
| e | 0.650 BSC | | |
| e1 | 1.20 | 1.40 | 1.30 |
| F | 0.375 | 0.475 | 0.425 |
| L | 0.25 | 0.40 | 0.30 |
| a | 8° | | |
| All Dimensions in mm | | | |

Suggested Pad Layout

Please see AP02001 at http://www.diodes.com/_files/datasheets/ap02001.pdf for the latest version.

SOT323



| Dimensions | Value (in mm) |
|------------|---------------|
| C | 0.650 |
| G | 1.300 |
| X | 0.470 |
| Y | 0.600 |
| Y1 | 2.500 |

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