

Maximum Ratings @T_A = 25°C unless otherwise specified

| Characteristic | Symbol | Value | Unit |
|---|----------------|-------|------|
| Forward Voltage @ I _F = 10mA | V _F | 0.9 | V |

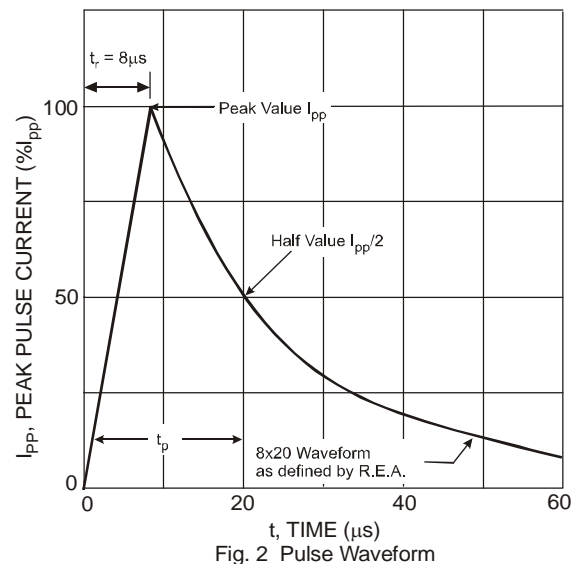
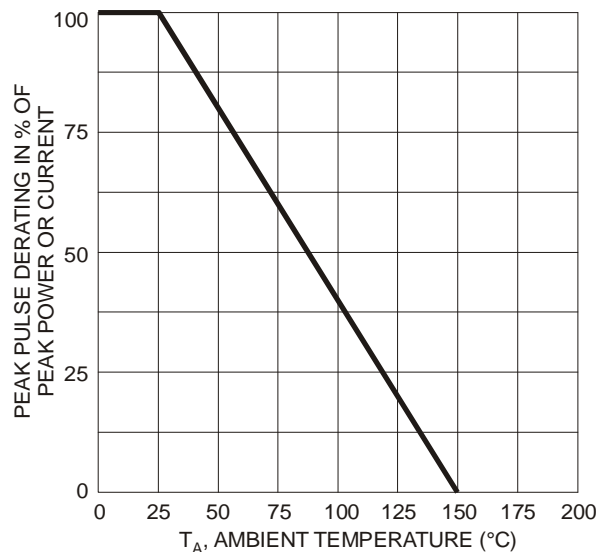
Thermal Characteristics

| Characteristic | Symbol | Value | Unit |
|--|-----------------------------------|-------------|------|
| Power Dissipation (Notes 4 & 5) | P _D | 380 | mW |
| Peak Power Dissipation, 8x20μS Waveform (Note 6) | P _{pk} | 20 | W |
| Thermal Resistance, Junction-to-Ambient (Note 4) | R _{θJA} | 327 | °C/W |
| Operating and Storage Temperature Range | T _J , T _{STG} | -55 to +150 | °C |

Electrical Characteristics @T_A = 25°C unless otherwise specified

| Type Number | Marking Code | Breakdown Voltage (Note 7) | | | Leakage Current (Note 7) | | Clamping Voltage (Note 6) | | Capacitance @0V Bias(pF) (Note 8) | | Capacitance @3V Bias(pF) (Note 8) | |
|-------------|--------------|--|---------|---------|-----------------------------------|-----|--------------------------------------|---------------------|-----------------------------------|-----|-----------------------------------|-----|
| | | V _{BR} @ I _T = 1mA | | | I _{RM} @ V _{RM} | | V _C Max @ I _{PP} | | C _T | | C _T | |
| | | Min (V) | Nom (V) | Max (V) | Max(μA) | (V) | V _C (V) | I _{PP} (A) | Typ | Max | Typ | Max |
| DZQA6V8AXV5 | T62 | 6.47 | 6.8 | 7.14 | 1 | 4.3 | 13 | 1.6 | 12.5 | 15 | 7.6 | 9.5 |

- Notes:
- Device mounted on FR-4 PCB, 1 inch x 0.85 inch x 0.062 inch; pad layout as shown on Diodes Inc. Suggested Pad Layout Document AP02001, which can be found on our website at <http://www.diodes.com>.
 - Only 1 diode under power. For all 4 diodes under power, P_D will be 25% of the listed value.
 - Non-repetitive current pulse per Figure 3 and derate above T_A = 25°C per Figure 1.
 - Short duration pulse test used to minimize self-heating effect.
 - Per element, f = 1MHz, T_A = 25°C



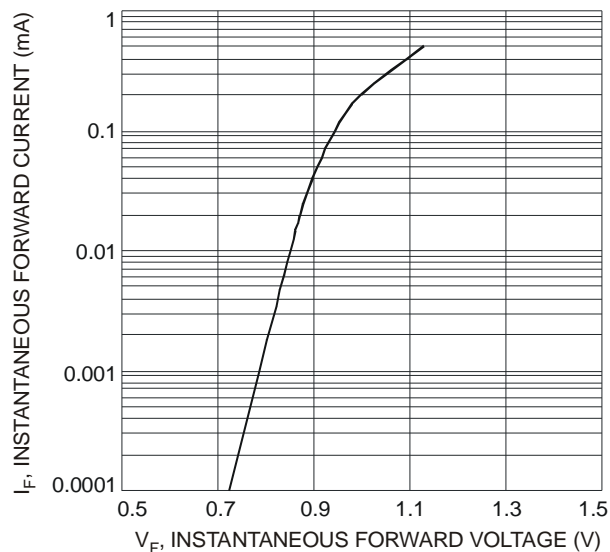


Fig. 3 Typical Forward Characteristics

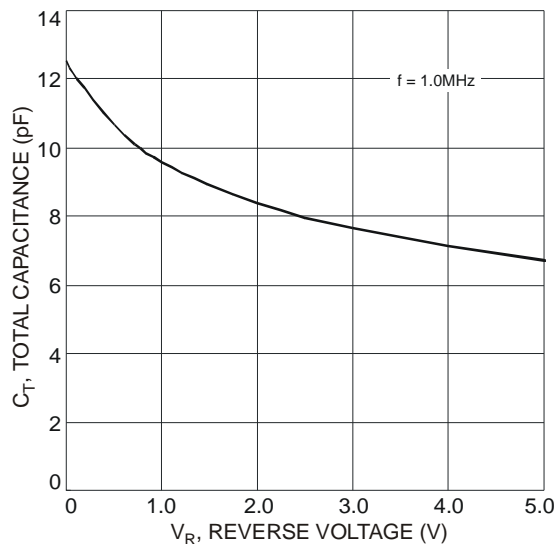
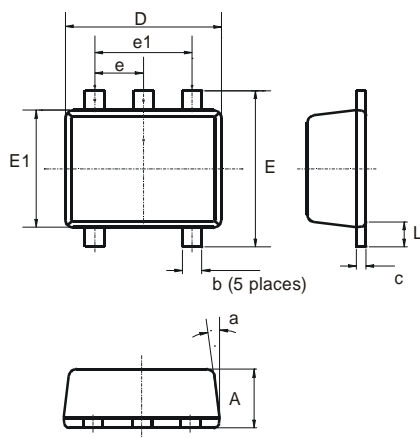


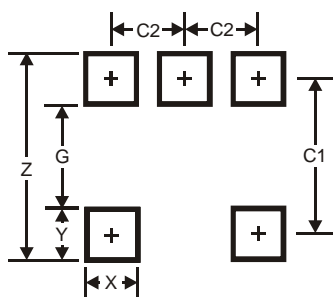
Fig. 4 Typical Total Capacitance vs. Reverse Voltage (Per Element)

Package Outline Dimensions



| SOT553 | | | |
|----------------------|----------|------|------|
| Dim | Min | Max | Typ |
| A | 0.55 | 0.60 | 0.60 |
| c | 0.10 | 0.18 | 0.15 |
| D | 1.50 | 1.70 | 1.60 |
| E | 1.55 | 1.70 | 1.60 |
| E1 | 1.10 | 1.25 | 1.20 |
| L | 0.10 | 0.30 | 0.20 |
| b | 0.15 | 0.30 | 0.20 |
| e | 0.50 Typ | | |
| e1 | 1.00 Typ | | |
| a | 6° | 8° | 7° |
| All Dimensions in mm | | | |

Suggested Pad Layout



| Dimensions | Value (in mm) |
|------------|---------------|
| Z | 2.2 |
| G | 1.2 |
| X | 0.375 |
| Y | 0.5 |
| C1 | 1.7 |
| C2 | 0.5 |

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