



THE DATASHEET OF ESDSL5V0AE2-TP

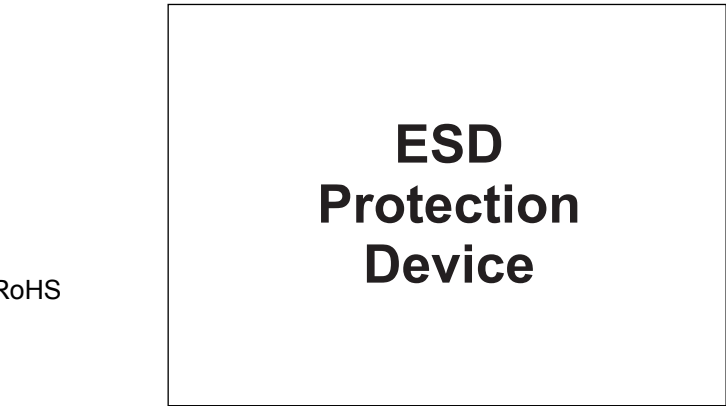


Features

- Ultra Low Capacitance
- Low Clamping Voltage
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free. "Green" Device (Note 1)
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +125°C
- Storage Temperature Range: -55°C to +150°C



| | | |
|---|-----------------|----------------|
| MCC Part Number | Device Marking | |
| ESDSL5V0AE2 | ZZ | |
| IEC61000-4-2(ESD) | Air Contact | ±20KV ±20KV |
| Maximum Reverse Peak Pulse Current (8/20us) | I _{PP} | 5A |
| Peak Pulse Power (8/20us Waveform) | P _{PK} | 125W |

Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

Pin Configuration



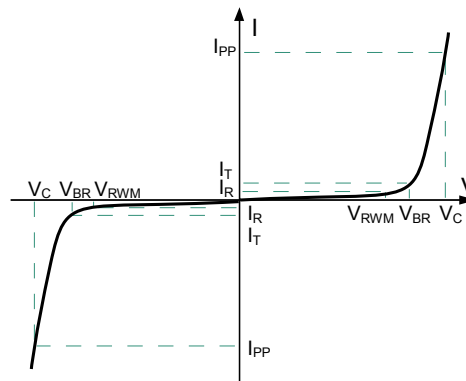
0201-A

| DIM | INCHES | | MM | | NOTE |
|-----|--------|-------|-------|------|------|
| | MIN | MAX | MIN | MAX | |
| A | 0.009 | 0.013 | 0.23 | 0.33 | |
| B | 0.000 | 0.002 | 0.00 | 0.05 | |
| C | 0.005 | 0.007 | 0.12 | 0.18 | |
| D | 0.022 | 0.026 | 0.55 | 0.65 | |
| E | 0.010 | 0.014 | 0.25 | 0.35 | |
| F | 0.014 | | 0.355 | | TYP. |
| G | 0.008 | 0.011 | 0.22 | 0.28 | |
| H | 0.003 | | 0.079 | | TYP. |
| L | 0.006 | 0.009 | 0.16 | 0.22 | |

SUGGESTED SOLDER PAD LAYOUT
(mm)

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted)

| Symbol | Parameter |
|-----------|---|
| I_{PP} | Maximum Reverse Peak Pulse Current |
| V_C | Clamping Voltage @ I_{PP} |
| V_{RWM} | Working Peak Reverse Voltage |
| I_R | Maximum Reverse Leakage Current @ V_{RWM} |
| V_{BR} | Breakdown Voltage @ I_T |
| I_T | Test Current |
| C | Capacitance @ $V_R=0$ and $f=1\text{MHz}$ |



Electrical Characteristics @ 25°C (Unless Otherwise Specified)

| Parameter | Symbol | Conditions | Min. | Typ. | Max. | Units |
|--------------------------------------|-----------|---|------|------|------|---------------|
| Reverse Working Voltage | V_{RWM} | | | | 5 | V |
| Reverse Breakdown Voltage | V_{BR} | $I_T = 1\text{mA}$ | 6.5 | | 9.5 | V |
| Reverse Leakage Current | I_R | $V_{RWM}=5\text{V}$ | | 0.02 | 0.1 | μA |
| Clamping Voltage ^(Note 2) | V_C | $I_{PP}=8\text{A}, t_p=100\text{ns}$ | | 21 | | V |
| Clamping Voltage ^(Note 2) | V_C | $I_{PP}=16\text{A}, t_p=100\text{ns}$ | | 30 | | V |
| Clamping Voltage | V_C | $I_{PP}=1\text{A}, t_p=8/20\mu\text{s}$ | | | 12 | V |
| Clamping Voltage | V_C | $I_{PP}=5\text{A}, t_p=8/20\mu\text{s}$ | | | 25 | V |
| Junction Capacitance | C_J | $V_R=0\text{V}, f=1\text{MHz}$ | | 0.26 | 0.32 | pF |

Note:

2. TLP Parameter: $Z_0=50\Omega, t_p=100\text{ns}, t_r=2\text{ns}$, Averaging Window from 60ns to 80ns. R_{DYN} is Calculated from 4A to 16A.

Curve Characteristics

Fig. 1 - 8 X 20µs Pulse Waveform

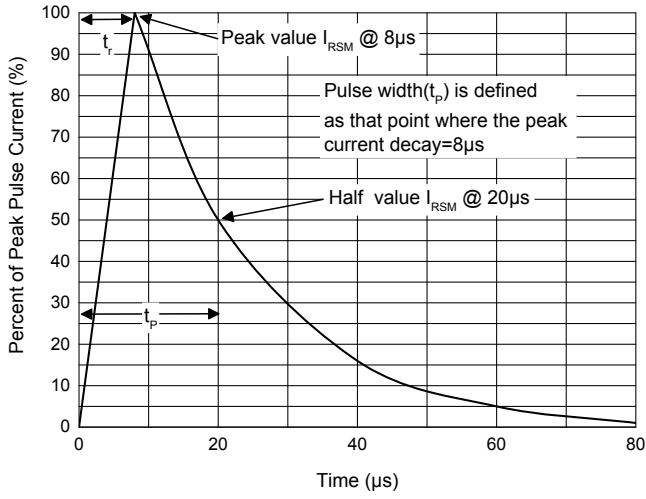


Fig. 2 - Pulse Derating Curve

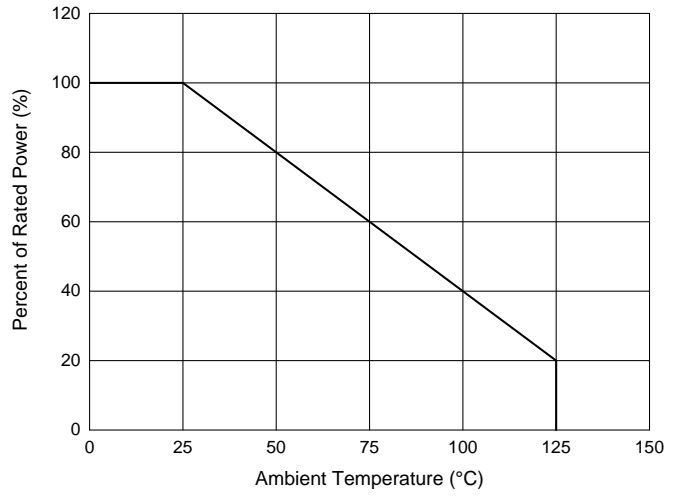


Fig. 3 - Capacitance Characteristics

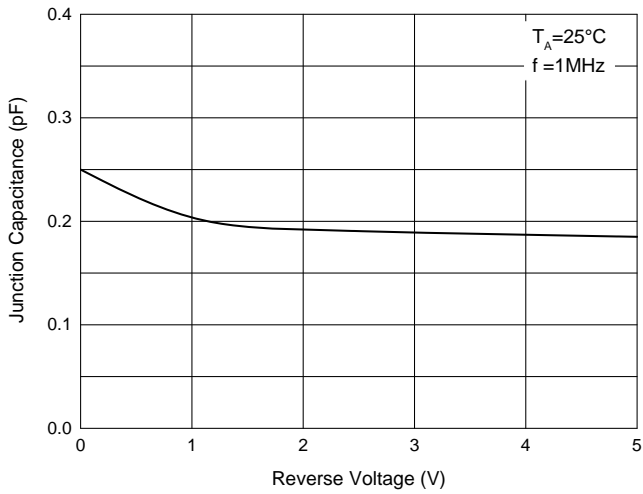


Fig. 4 - Clamping Voltage Characteristics

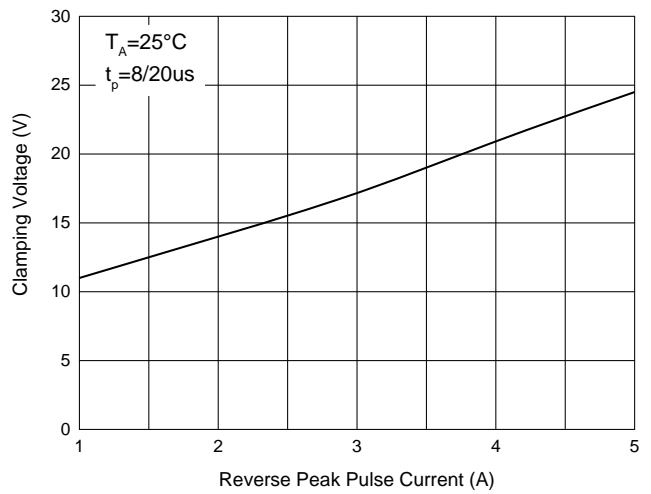
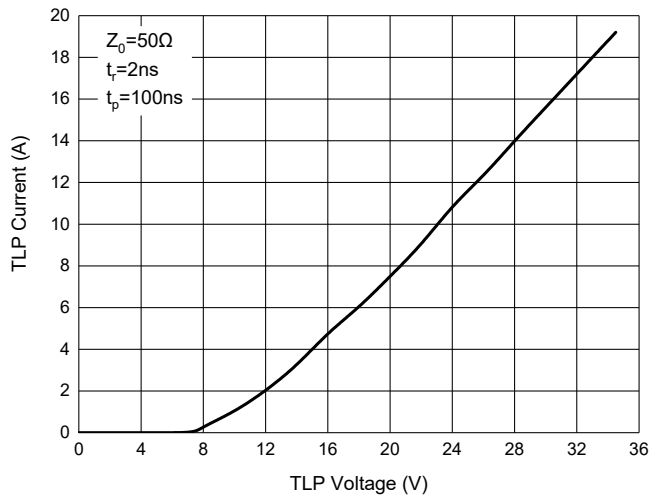


Fig. 5 - TLP Measurement



Ordering Information

| Device | Packing |
|----------------|------------------------|
| Part Number-TP | Tape&Reel: 10Kpcs/Reel |

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