

Features

- AECQ-101 Qualified with Wettable Flank
- Low Capacitance
- Low Clamping Voltage
- Ultra Low Leakage Current
- Moisture Sensitivity Level 1
- Halogen Free. "Green" Device (Note 1)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

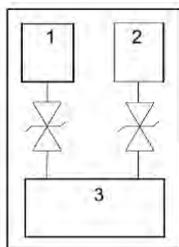
Maximum Ratings

| | | |
|--|------------------|-----------------|
| IEC61000-4-2 (ESD) | Air | ±30KV |
| | Contact | ±30KV |
| Peak Pulse Current (8/20µs) | I _{PP} | 5A |
| Peak Pulse Power (8/20µs) ^(Note2) | P _{PK} | 170W |
| Operating Junction Temperature Range | T _J | -55°C to +125°C |
| Storage Temperature Range | T _{STG} | -55°C to +150°C |

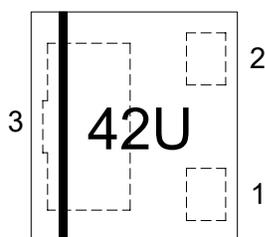
Note :

1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2. Non-repetitive current pulse 8/20 µs exponential decay waveform according to IEC61000-4-5.

Internal Structure

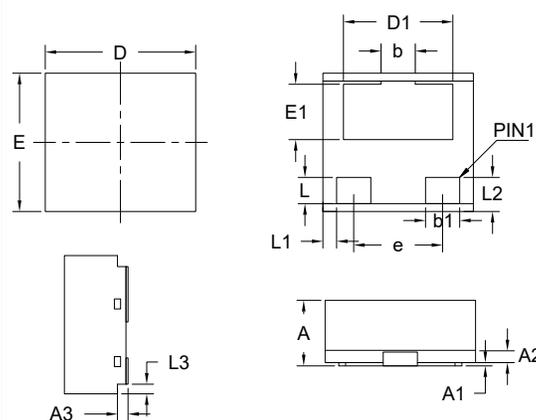


Marking Code



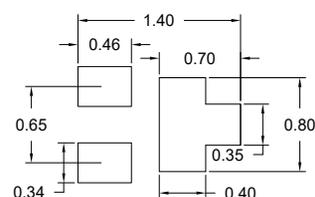
Snap Back ESD Protection Device

DFN1110-3(SWF)

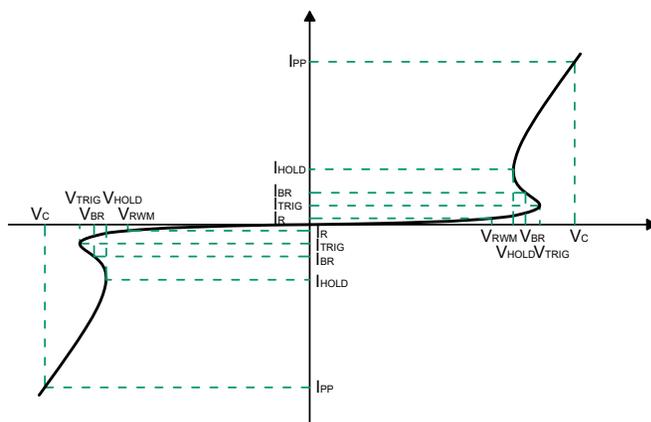


| | DIMENSIONS | | | | NOTE |
|----|------------|-------|-------|-------|------|
| | INCH | | MM | | |
| | MIN | MAX | MIN | MAX | |
| A | 0.016 | 0.020 | 0.400 | 0.500 | |
| A1 | 0.000 | 0.002 | 0.000 | 0.050 | |
| A2 | 0.004 | | 0.100 | | MIN |
| A3 | 0.005 | | 0.127 | | MIN |
| D | 0.041 | 0.045 | 1.050 | 1.150 | |
| E | 0.037 | 0.041 | 0.950 | 1.050 | |
| D1 | 0.030 | 0.033 | 0.750 | 0.850 | |
| E1 | 0.014 | 0.018 | 0.350 | 0.450 | |
| b | 0.008 | 0.012 | 0.200 | 0.300 | |
| b1 | 0.008 | 0.012 | 0.200 | 0.300 | |
| e | 0.024 | 0.028 | 0.600 | 0.700 | |
| L | 0.006 | 0.009 | 0.140 | 0.240 | |
| L1 | 0.004 | | 0.100 | | TYP |
| L2 | 0.008 | 0.012 | 0.210 | 0.310 | |
| L3 | 0.000 | 0.003 | 0.000 | 0.070 | |

SUGGESTED SOLDER PAD LAYOUT (mm)



| Symbol | Parameter |
|------------|-------------------------------------|
| V_{RWM} | Peak Reverse Working Voltage |
| I_R | Reverse Leakage Current @ V_{RWM} |
| V_{BR} | Breakdown Voltage @ I_T |
| I_{PP} | Maximum Reverse Peak Pulse Current |
| V_C | Clamping Voltage @ I_{PP} |
| V_{TRIG} | Reverse Trigger Voltage |
| I_{TRIG} | Reverse Trigger Current |
| V_{HOLD} | Reverse Holding Voltage |
| I_{HOLD} | Reverse Holding Current |
| C_J | Junction Capacitance |



Electrical Characteristics @ 25°C (Unless Otherwise Specified)

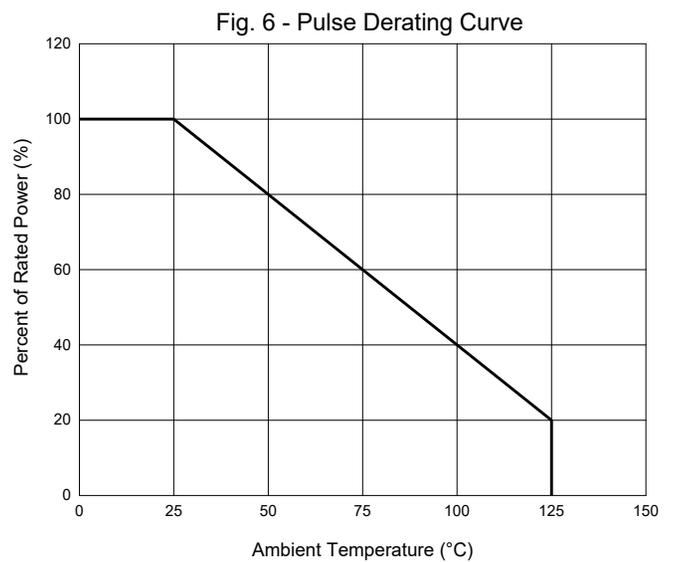
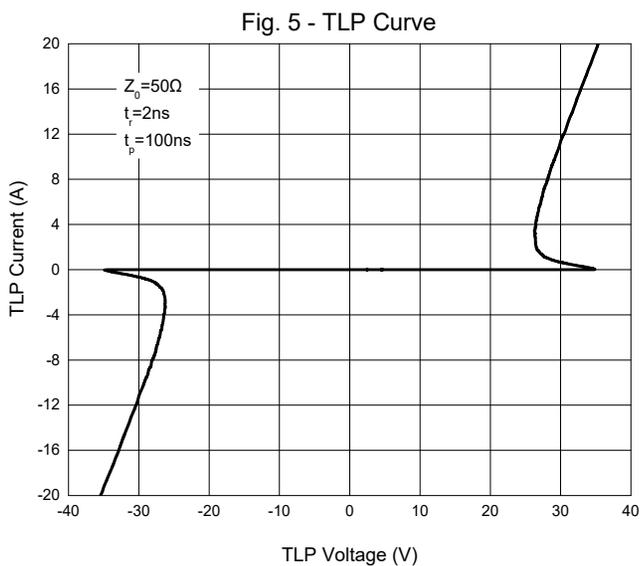
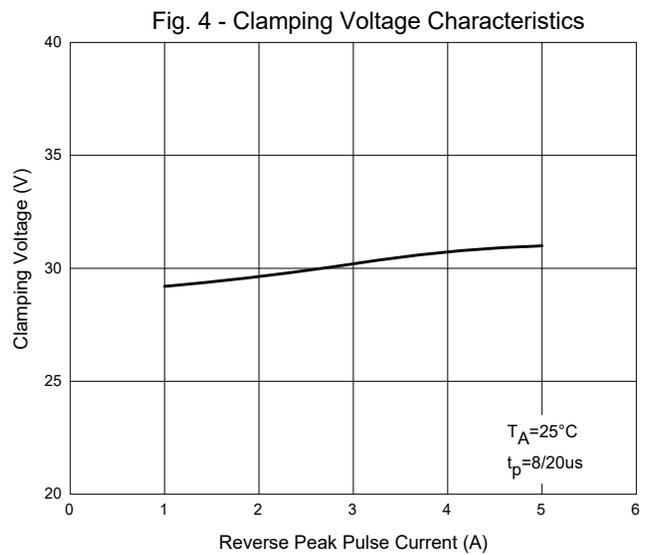
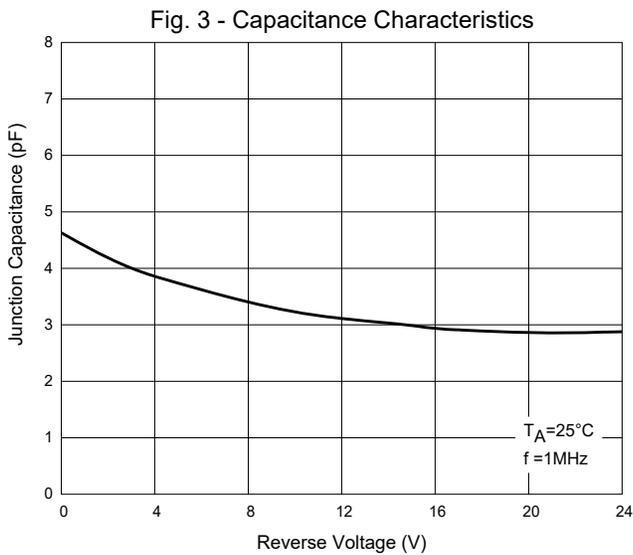
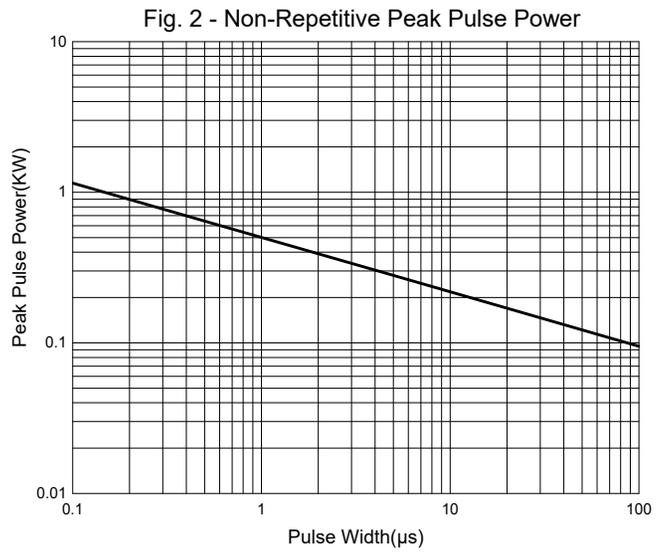
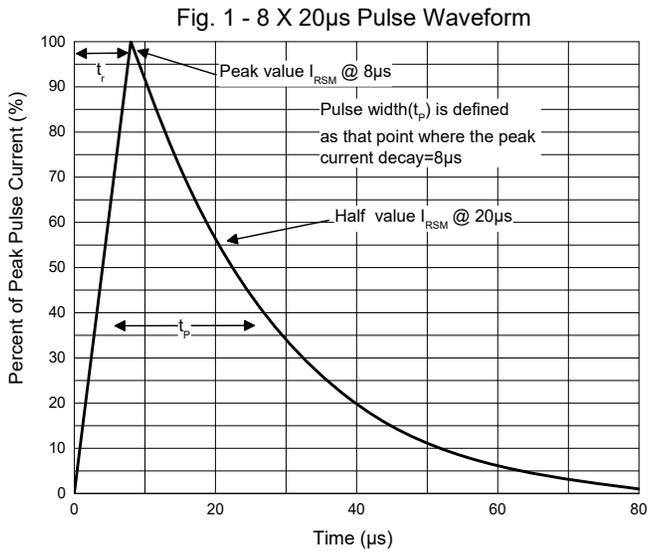
| Parameter | Symbol | Conditions | Min. | Typ. | Max. | Units |
|-------------------------------------|-----------|----------------------------|------|------|------|----------|
| Reverse Working Voltage | V_{RWM} | | | | 24 | V |
| Reverse Breakdown Voltage | V_{BR} | $I_T=1mA$ | 26.5 | | | V |
| Reverse Leakage Current | I_R | $V_{RWM}=24V$ | | | 0.2 | μA |
| Clamping Voltage ^{Note1} | V_C | $I_{PP}=1A, t_p=8/20\mu s$ | | | 34 | V |
| Clamping Voltage ^{Note1} | V_C | $I_{PP}=5A, t_p=8/20\mu s$ | | | 34 | V |
| Junction Capacitance | C_J | $V_R=0V, f=1MHz$ | | 5 | | pF |
| Dynamic Resistance ^{Note2} | R_{DYN} | TLP, $t_p=100ns$ | | 0.57 | | Ω |

Note :

1.Non-repetitive current pulse 8/20 μs exponential decay waveform according to IEC61000-4-5.

2.TLP parameter: $Z_0=50\Omega, t_p=100ns, t_r=2ns$, averaging window from 60ns to 80ns. R_{DYN} is calculated from 4A to 16A.

Curve Characteristics



Ordering Information

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

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