

DESCRIPTION

The SE10F15B36A is a low capacitance transient voltage suppressor array , designed to protect applications such as Cell Phone Handsets and Accessories. This product is rated at 150 Watts for an 8/20μs waveform.

The SE10F15B36A meets IEC 61000-4-2 (ESD) and IEC 61000-4-4 (EFT) requirements. At higher operating frequencies or faster edge rates, insertion loss and signal integrity are a major concern. The SE10F15B36A offers a low capacitance and low leakage current in a miniature DFN1006DN package.

FEATURES

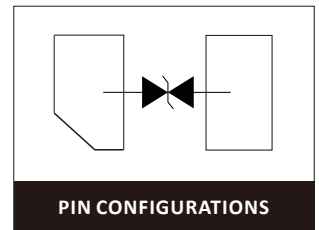
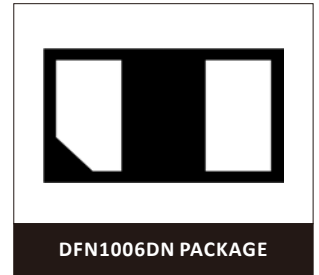
- >150 Watts Peak Pulse Power per Line (tp=8/20μs)
- >Protects One Power or I/O Port
- >Low clamping voltage
- >Low leakage current

APPLICATIONS

- >Cell Phone Handsets and Accessories
- >Microprocessor based equipment
- >Personal Digital Assistants (PDA's)
- >Notebooks, Desktops, and Servers
- >Peripherals
- >Pagers

IEC COMPATIBILITY

- >IEC61000-4-2 (ESD) ±25kV (Air), ±15kV (Contact)
- >IEC61000-4-4 (EFT) 40A (5/50ns)
- >IEC61000-4-5 (LIGHTNING) 3A (8/20μs)



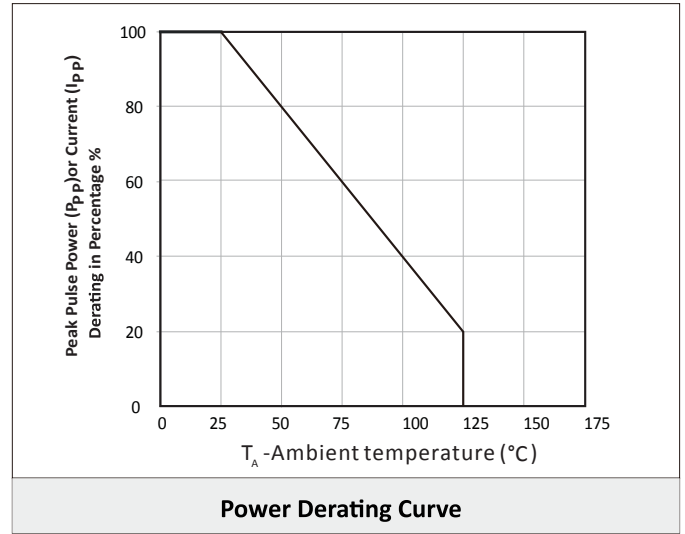
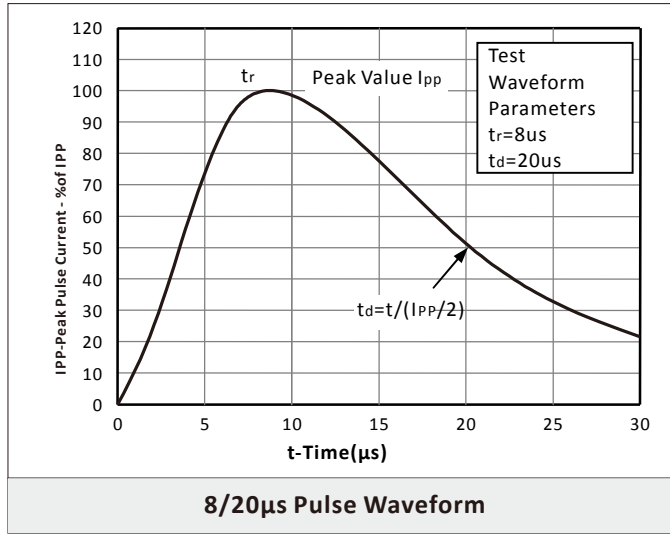
MAXIMUM RATINGS @ 25°C UNLESS OTHERWISE SPECIFIED

| PARAMETER | SYMBOL | VALUE | UNIT |
|---------------------------------------|--------|--------------|-------|
| Peak Pulse Power (tp=8/20μs waveform) | PPP | 150 | Watts |
| Lead Soldering Temperature | TL | 260(10 sec.) | °C |
| Operating Temperature Range | TJ | -40~125 | °C |
| Storage Temperature Range | TSTG | -55~150 | °C |

ELECTRICAL CHARACTERISTICS PER LINE @ 25°C UNLESS OTHERWISE SPECIFIED

| PART NUMBER | DEVICE MARKING | V _{RWM} | V _B | I _T | V _C | | I _R | C _T |
|-------------|----------------|------------------|----------------|----------------|----------------|----|----------------|----------------|
| | | (V) Max. | (V) Min. | (mA) | Max. | @A | (uA) Max. | (pF) Typ. |
| SE10F15B36A | DN | 36 | 40 | 1 | 75 | 2 | 1 | 20 |

CHARACTERISTIC CURVES

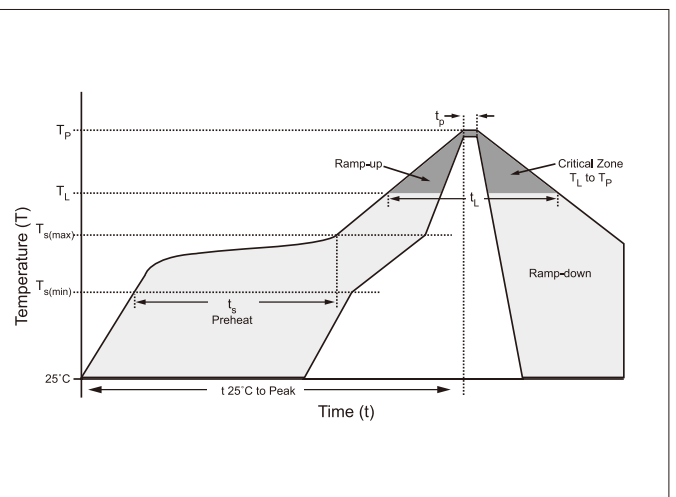


ENVIRONMENTAL CHARACTERISTICS

| Testing Items | Technical Standards |
|---------------------------------------|---|
| High Temperature Reverse Bias Test | Temperature: $150 \pm 3^\circ C$; Bias = $80\% V_{DRM}$; Time: 168H |
| High Temperature Life Test | Temperature: $150^\circ C$; Time: 168H |
| High-Low Temperature Cycle Test | Temperature: From $-40^\circ C$ to $150^\circ C$; Dwell Time: 30min, 10-100 Cycles |
| High Temperature & High Humidity Test | Temperature: $85^\circ C$. Humidity: 85%; Time: 168H |
| Pressure Cooker Test | Temperature: $121^\circ C$, 2 atm. Humidity: 100%; Time: 24H To 168H |
| Resistance Of Soldering Heat | Temperature: $260 \pm 5^\circ C$; Time Of Dip Soldering: 10s, 3 Times |

REFLOW PROFILE

| Reflow Condition | | Lead-free assembly |
|--|----------------------------------|------------------------|
| Pre Heat | Temperature Min ($T_{s(min)}$) | $150^\circ C$ |
| | Temperature Max ($T_{s(max)}$) | $200^\circ C$ |
| | Time (min to max) (t_s) | 60 – 180 secs |
| Average ramp up rate (Liquidus Temp (T_L) to peak) | | $3^\circ C/second$ max |
| $T_{s(max)}$ to T_L - Ramp-up Rate | | $3^\circ C/second$ max |
| Reflow | Temperature (T_L) (Liquidus) | $217^\circ C$ |
| | Time (min to max) (t_L) | 60 – 150 seconds |
| Peak Temperature (T_P) | | $260^\circ C$ |
| Time within $5^\circ C$ of actual peak Temperature (t_p) | | 20 – 40 seconds |
| Ramp-down Rate | | $6^\circ C/second$ max |
| Time $25^\circ C$ to peak Temperature (T_P) | | 8 minutes Max. |
| Do not exceed | | $260^\circ C$ |



DFN1006DN PACKAGE DIMENSIONS

| OUTLINE DIMENSIONS | | | | |
|--------------------|-------------|------|----------|-------|
| DIM | MILLIMETERS | | INCHES | |
| | MIN | MAX | MIN | MAX |
| A | 0.45 | 0.55 | 0.018 | 0.022 |
| A1 | 0 | 0.05 | 0 | 0.002 |
| b | 0.45 | 0.55 | 0.018 | 0.022 |
| c | 0.12 | 0.18 | 0.005 | 0.007 |
| D | 0.95 | 1.05 | 0.037 | 0.041 |
| e | 0.65BSC | | 0.026BSC | |
| E | 0.55 | 0.65 | 0.022 | 0.026 |
| L | 0.20 | 0.30 | 0.008 | 0.012 |
| L1 | 0.05REF | | 0.002REF | |
| h | 0.07 | 0.17 | 0.003 | 0.007 |

RECOMMENDED PAD LAYOUT DIMENSIONS

| DIM | MILLIMETERS | INCHES |
|-----|-------------|--------|
| A | 1.20 | 3.12 |
| B | 0.47 | 0.91 |
| C | 0.60 | 0.91 |

ORDERING INFORMATION

| Part Number | Component Package | QTY/Reel | Reel Size |
|-------------|-------------------|----------|-----------|
| SE10F15B36A | DFN1006DN | 5000PCS | 7" |

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