

FEATURES

- | 105 Watts Peak Pulse Power per Line (tp=8/20μs)
- | Protects one bidirectional I/O line
- | Working voltages : 7 V
- | Low leakage current
- | Low clamping voltage

APPLICATIONS

- | Cell Phone Handsets and Accessories
- | Microprocessor based equipment
- | Personal Digital Assistants (PDA' S)
- | Notebooks,Desktops,and Servers
- | Portable Instrumentation
- | Peripherals
- | Projection TV


DFN1006

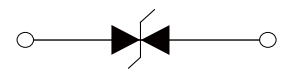
Marking

IEC COMPATIBILITY

- | IEC61000-4-2 (ESD) ±30kV (air), ±30kV (contact)
- | IEC61000-4-4 (EFT) 40A (5/50ns)

APPROVALS

| | |
|-------------|------------------------------------|
| RoHS | Compliance with 2011/65/EU |
| HF | Compliance with IEC61249-2-21:2003 |


Schematic Symbol

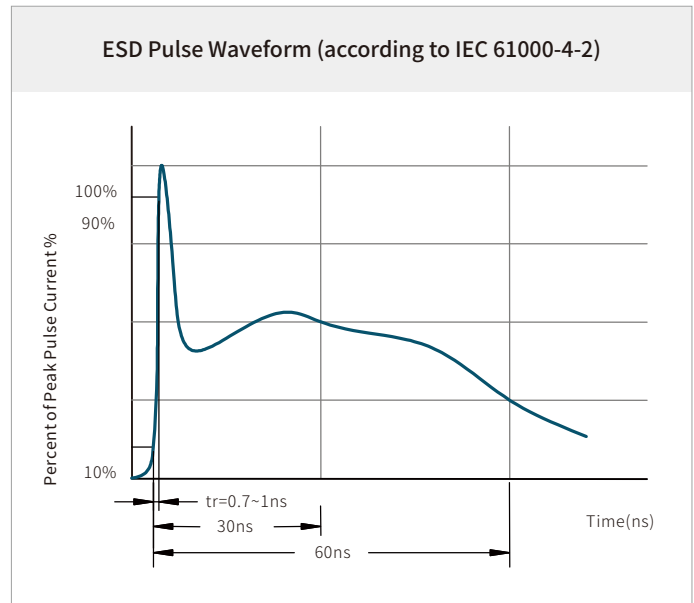
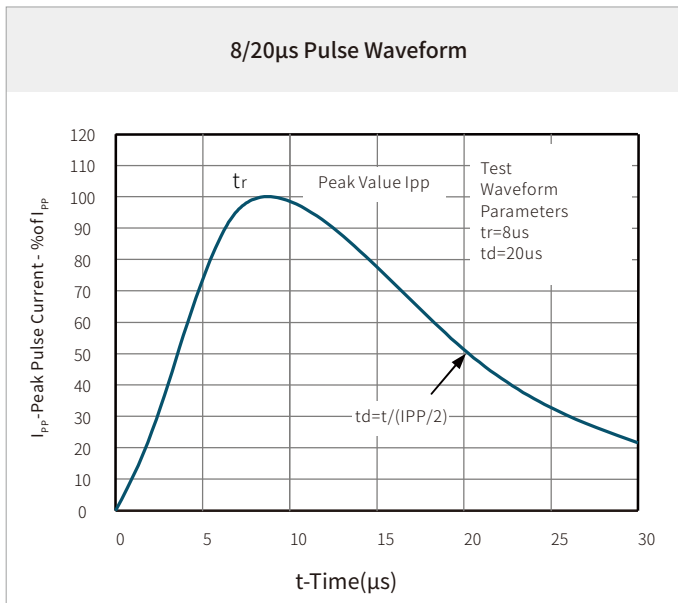
THERMAL CONSIDERATIONS

| Symbol | Parameter | Value | Unit |
|------------------|---------------------------------------|-------------|-------|
| P _{pp} | Peak Pulse Power (tp=8/20μs waveform) | 105 | Watts |
| T _J | Operating Temperature Range | -55 to +150 | °C |
| T _{STG} | Storage Temperature Range | -55 to +150 | °C |

ELECTRICAL CHARACTERISTICS

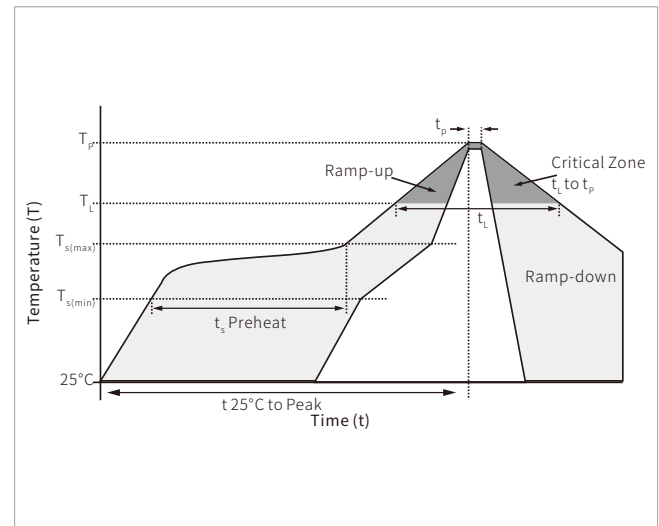
| Symbol | Parameter | Condition | Min. | Typ. | Max. | Unit |
|------------------|--------------------------------|----------------------------------|------|------|------|------|
| V _{RWM} | Reverse Stand-off Voltage | | | | 7 | V |
| V _{BR} | Reverse Breakdown Voltage | I _T =1mA | 7.6 | | 9.0 | V |
| I _R | Reverse Leakage Current | V _{RWM} =7V | | | 100 | nA |
| V _C | Clamping Voltage | I _{pp} =1A, tp=8/20μs | | 9 | 12 | V |
| V _C | Clamping Voltage | I _{pp} =6.5A, tp=8/20μs | | 10 | 16 | V |
| I _{PP} | Peak Pulse Current | tp=8/20μs | | | 6.5 | A |
| C _J | Off State Junction Capacitance | V _R =0V, f=1MHz | | 15 | 20 | pF |

CHARACTERISTIC CURVES

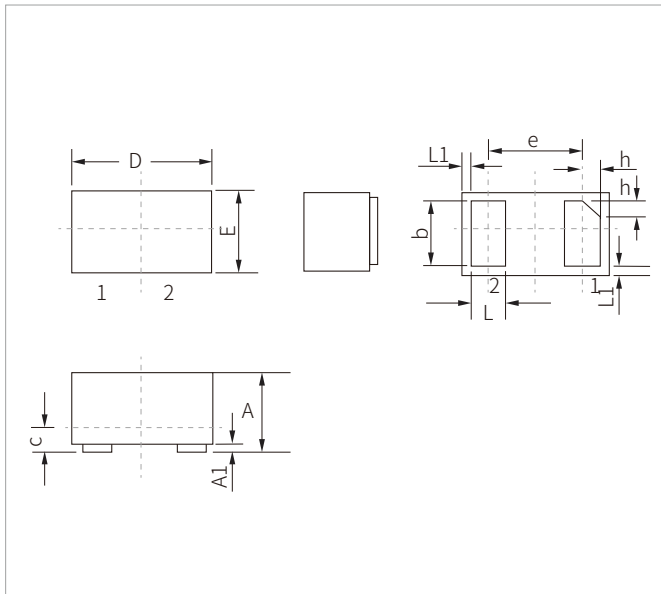


SOLDERING PARAMETERS

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

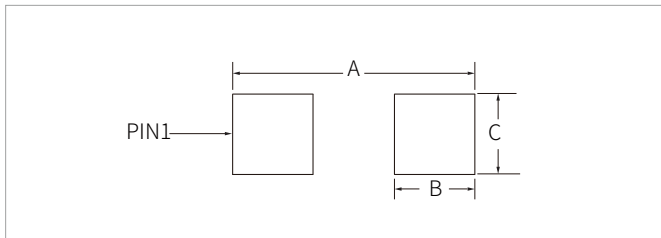


DFN1006 PACKAGE INFORMATION



| Ref. | Millimeters | | Inches | |
|------|-------------|------|----------|-------|
| | Min. | Max. | Min. | Max. |
| A | 0.40 | 0.60 | 0.016 | 0.024 |
| A1 | 0 | 0.05 | 0 | 0.002 |
| b | 0.40 | 0.55 | 0.016 | 0.022 |
| c | 0.12 | 0.18 | 0.005 | 0.007 |
| D | 0.90 | 1.10 | 0.035 | 0.043 |
| e | 0.65BSC | | 0.026BSC | |
| E | 0.55 | 0.75 | 0.022 | 0.030 |
| L | 0.20 | 0.35 | 0.008 | 0.014 |
| L1 | 0.05REF | | 0.002REF | |
| h | 0.07 | 0.17 | 0.003 | 0.007 |

RECOMMENDED PAD LAYOUT DIMENSIONS



| Ref. | Millimeters | Inches |
|------|-------------|--------|
| A | 1.20 | 0.047 |
| B | 0.47 | 0.019 |
| C | 0.60 | 0.024 |

ORDERING INFORMATION

| Part Number | Component Package | QTY/Reel | Reel Size |
|----------------|-------------------|----------|-----------|
| LESD8D7.0CAT5G | DFN1006 | 10000PCS | 7" |

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