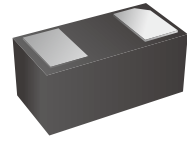


Features

- IEC 61000-4-2 Level 4 ESD Protection
 - ± 25 kV Contact Discharge
 - ± 25 kV Air Discharge
- 65W Peak pulse Power (8/20 μ s)
- Low clamping voltage
- Working voltage: 3.3V
- Low leakage current
- Protecting one Bi-directional lines
- Capacitance: 0.3pF Typ.
- Lead free in comply with EU RoHS 2011/65/EU directives



Applications

- Cellular handsets
- Tablets
- Laptops
- Other portable devices
- Network communication devices

Ordering Information

Part Number	Marking	Shipping	Reel
LTE10N03C01LB-TR10	3B	10000PCS Tape&Reel	7 inches

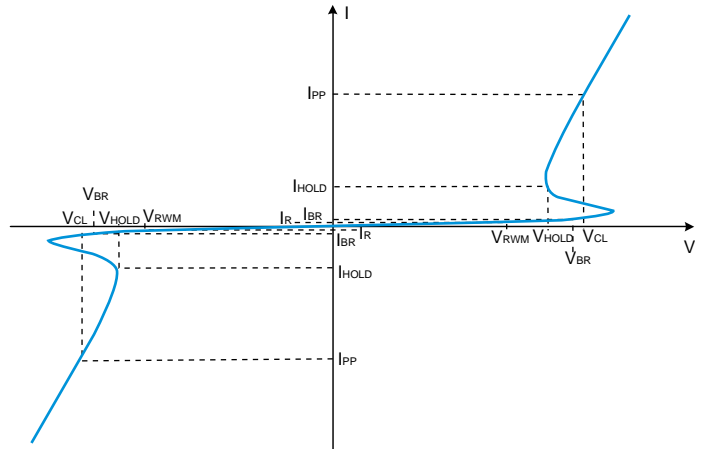
Absolute Maximum Rating

Over operating free-air temperature range (unless otherwise noted)

Parameters	Symbol	Min.	Max.	Unit
Peak pulse power (tp=8/20us)	P_{pk}	-	65	W
Peak pulse current (tp=8/20us)	I_{PP}	-	5	A
ESD (IEC61000-4-2 air discharge)	V_{ESD}	-	± 25	kV
ESD (IEC61000-4-2 contact discharge)	V_{ESD}	-	± 25	kV
Junction temperature	T_J	-	125	$^{\circ}C$
Operating temperature	T_{OP}	-40	125	$^{\circ}C$
Storage temperature	T_{STG}	-55	150	$^{\circ}C$
Lead temperature	T_L	-	260	$^{\circ}C$



Symbol	Parameters
V_{RWM}	Peak Reverse Working Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_{BR}	Test Current
I_{PP}	Maximum Reverse Peak Pulse Current
V_{CL}	Clamping Voltage @ I_{PP}
V_{HOLD}	Reverse holding voltage
I_{HOLD}	Reverse holding current



Electrical Characteristics

At $T_A = 25^\circ\text{C}$ unless otherwise noted

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Stand-off Voltage	V_{RWM}				3.3	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1\text{mA}$	3.5			V
Reverse Leakage Current	I_R	$V_{RWM}=3.3\text{V}$			0.1	μA
Clamping Voltage	V_C	$I_{PP}=1\text{A}; t_p=8/20\mu\text{s}$		7	9	V
		$I_{PP}=5\text{A}; t_p=8/20\mu\text{s}$		11	13	V
Junction Capacitance	C_J	$V_R=0\text{V}; f=1\text{MHz}$		0.3	0.4	pF



Characteristic Curves

Fig.1 8/20 μ s waveform per IEC61000-4-5

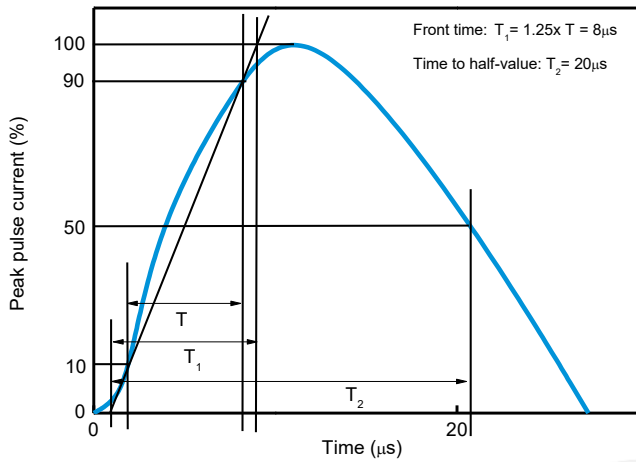


Fig.2 Contact discharge current waveform per IEC61000-4-2

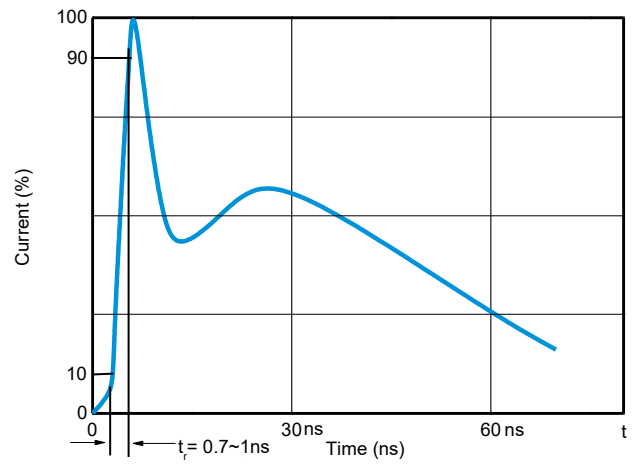


Fig.3 Clamping voltage vs. Peak pulse current

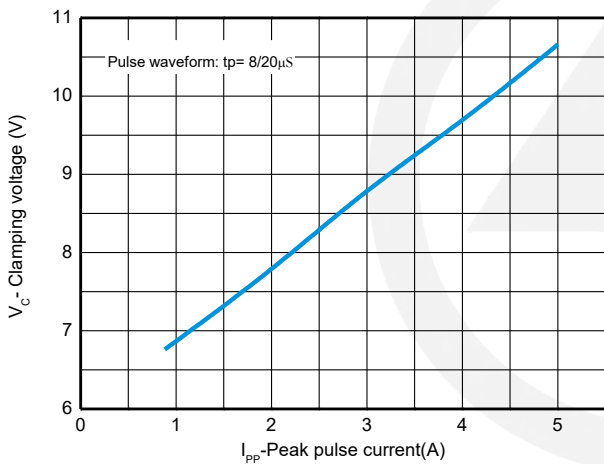


Fig.4 Capacitance vs. Reverse voltage

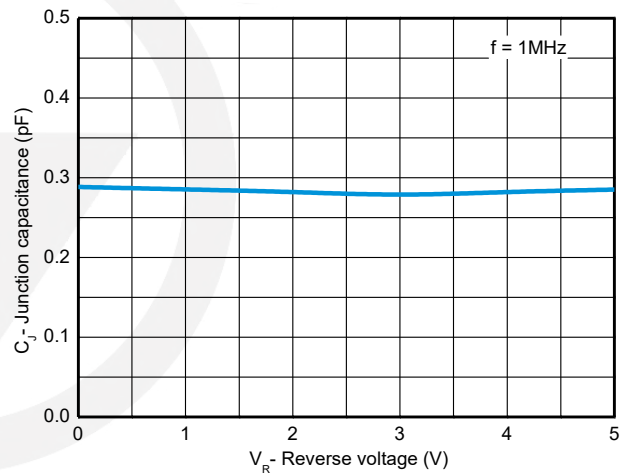


Fig.5 Non-repetitive peak pulse power vs. Pulse time

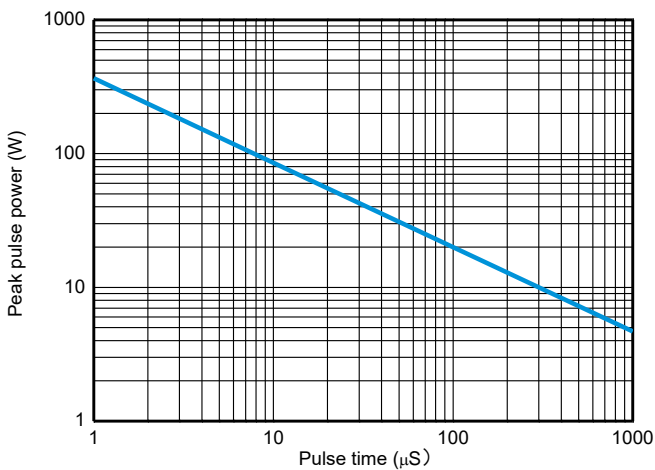
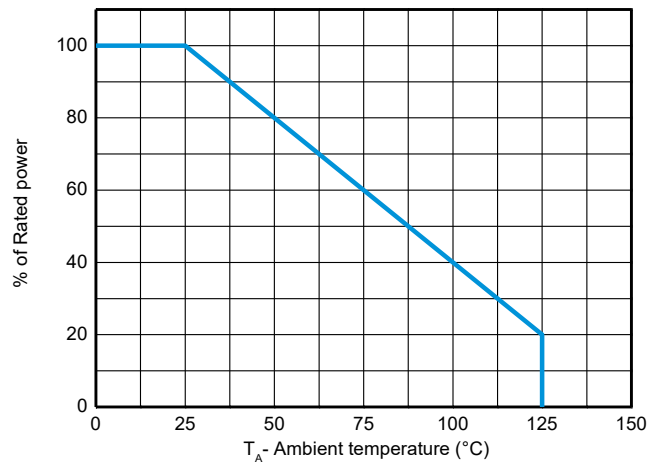


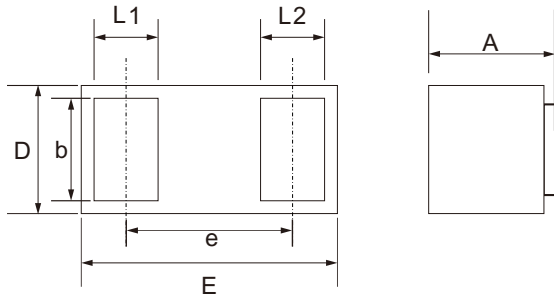
Fig.6 Power derating vs. Ambient temperature





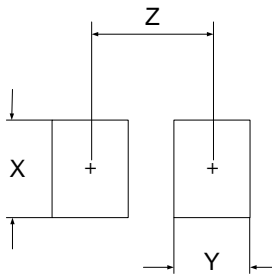
DFN1006 Package Outline

Unit: mm



SYMBOL	DIMENSIONS	
	MIN.	MAX.
D	0.550	0.650
E	0.950	1.050
L1	0.200	0.300
L2	0.200	0.300
b	0.450	0.550
e	0.650 TYP.	
A	0.450	0.550

DFN1006 Suggested Pad Layout



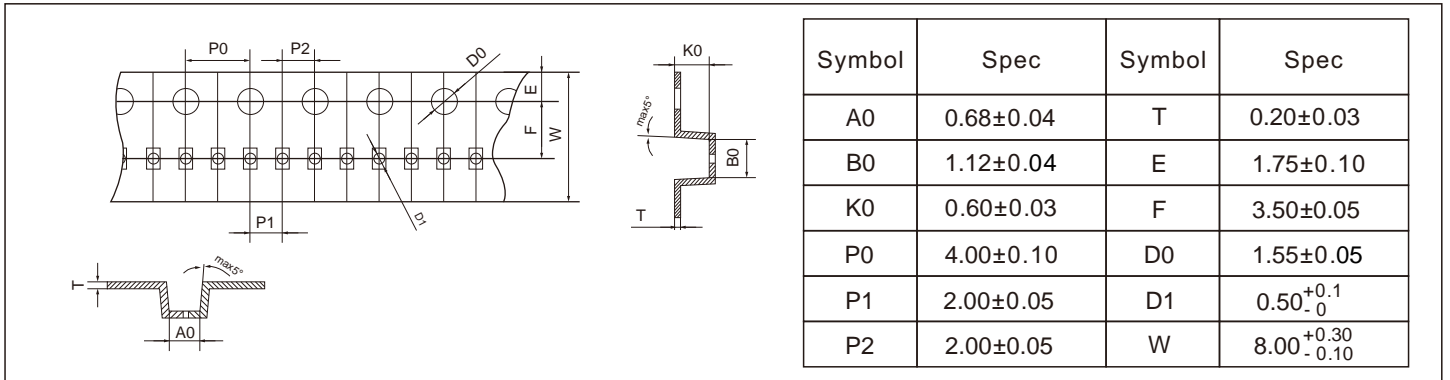
SYM	DIMENSIONS
	MILLIMETERS
X	0.50
Y	0.50
Z	0.90

Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$
3. The pad layout is for reference purpose only.

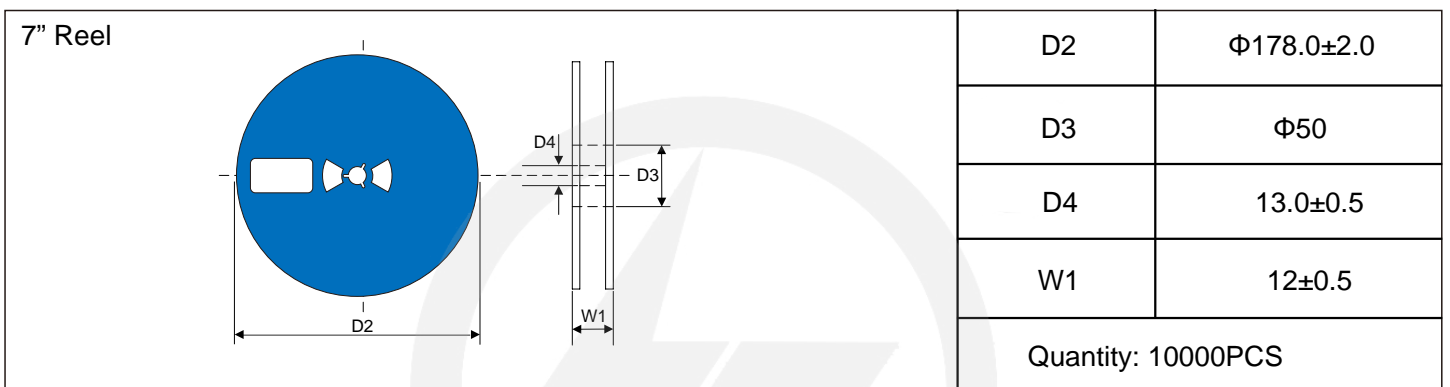
Carrier Tape Dimensions

Unit : mm

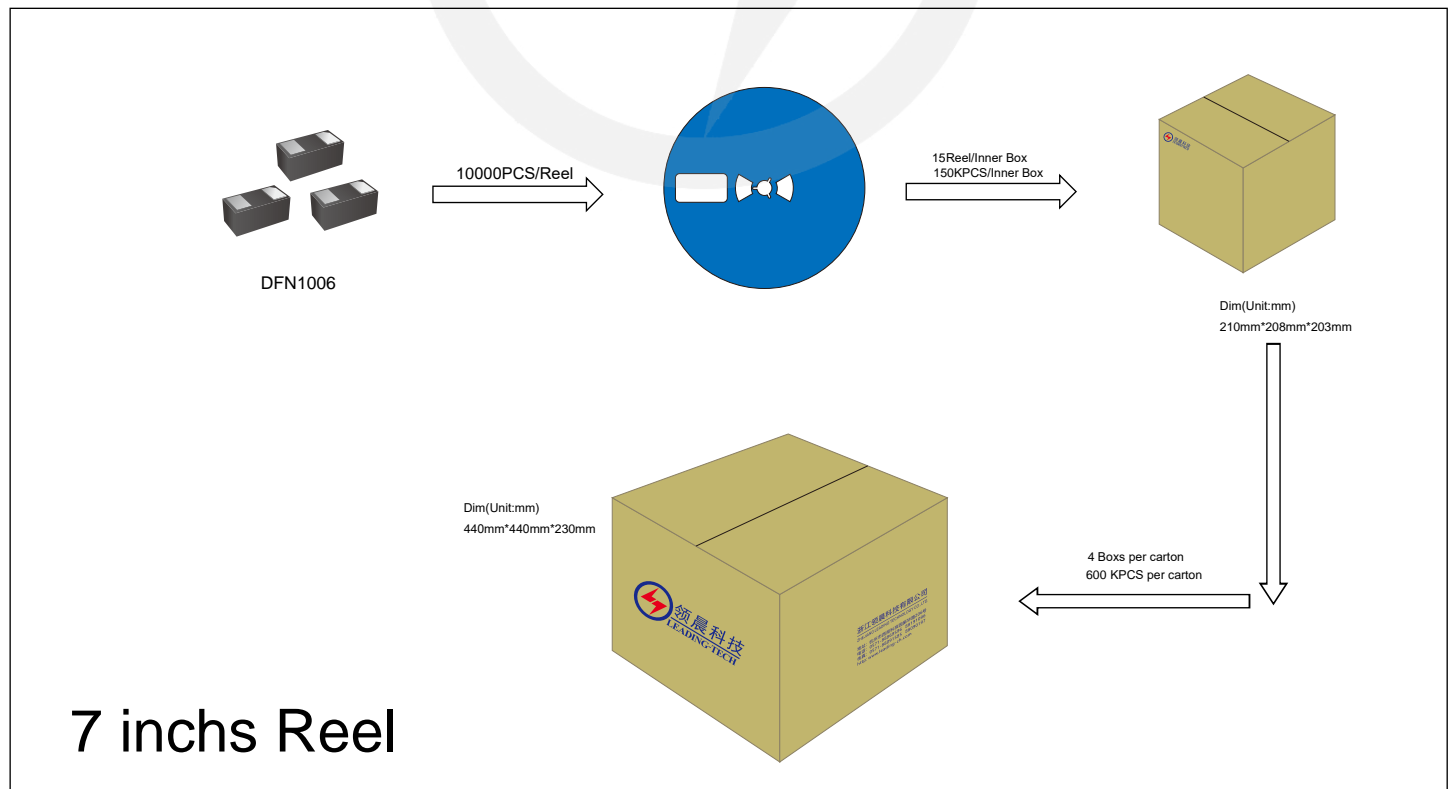


Reel Dimensions

Unit : mm



Packaging





Recommended Soldering Conditions



Recommended Conditions

Profile Feature	Pb-Free Assembly
Average ramp-up rate (T_L to T_P)	3°C/second max.
Preheat	
-Temperature Min ($T_{S\ min}$)	150°C
-Temperature Max ($T_{S\ max}$)	200°C
-Time (min to max) (t_s)	60-180 seconds
$T_{S\ max}$ to T_L	
-Ramp-up Rate	3°C/second max.
Time maintained above:	
-Temperature (T_L)	217°C
-Time (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	8 minutes max.

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Version Update Information

Series NO.	Enactment/Revision Date	Effective Date	Version	Revision content	Revision Reason	Revision Person	Note
01	2025.04.16	2025.04.16	3.0	New File	/	Ding	