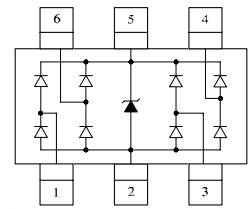
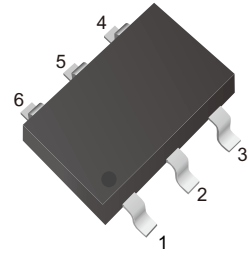


Ultra Low Capacitance ESD Protection Diode

Features

- Low capacitance: 1.5pF typical (I/O to I/O)
- Ultra low leakage: nA level
- Low operating voltage: 5V
- Low clamping voltage
- Up to 4 lines and one power line protects
- Complies with following standards:
 - – IEC 61000-4-2 (ESD) immunity test
Air discharge: ±30kV
Contact discharge: ±30kV
 - – IEC61000-4-5 (Lightning) 25A (8/20μs)
- Lead free in comply with EU RoHS 2011/65/EU directives



Mechanical Datas

- Case: SOT23-6
- Lead Finish: Matte Tin
- Case Material: “Green” Molding Compound
- Moisture Sensitivity: Level 3 per J-STD-020

Applications

- USB 2.0 power and data line
- Monitors and flat panel displays
- Set-top box and digital TV
- Video graphics cards
- Digital visual interface (DVI)
- Notebook Computers
- SIM Ports
- 10/100 Ethernet
- IEEE 1394 firewire ports

Ordering Information

Part Number	Marking	Shipping	Reel
LTE26T05A04LH-TR3	SRV05	3000PCS Tape&Reel	7 inches
LTE26T05A04LH-TR10	SRV05	10000PCS Tape&Reel	13 inches

Absolute Maximum Ratings (Tamb=25°C unless otherwise specified)

Symbol	Parameter	Value	Units
P _{PK}	Peak Pulse Power (8/20μs)	500	W
I _{PP}	Peak Pulse Current (8/20μs)	25	A
V _{ESD}	ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	±30 ±30	kV
T _{OPT}	Operating Temperature	-55/+125	°C
T _{STG}	Storage Temperature	-55/+150	°C

Electrical Characteristics (TA=25°C unless otherwise specified)

Symbol	Parameter	Test Condition	Min	Typ	Max	Units
V _{RWM}	Reverse Working Voltage	Any I/O pin to GND			5.0	V
V _{BR}	Reverse Breakdown Voltage	I _T = 1mA Any I/O pin to GND	6.0			V
I _R	Reverse Leakage Current	V _{RWM} = 5V Any I/O pin to GND			1	μA
V _F		I _F = 15mA			1.2	V
V _{C1}	Clamping Voltage 1	I _{PP} = 1A, t _p = 8/20μs			12	V
V _{C2}	Clamping Voltage 2	I _{PP} = 25A, t _p = 8/20μs Any I/O pin to GND			20	V
C _{J1}	Junction Capacitance 1	V _R = 0V, f = 1MHz Between I/O pins		1.5		pF
C _{J2}	Junction Capacitance 2	V _R = 0V, f = 1MHz Any I/O pin to GND		3.0	5.0	pF

Note: I/O pins are pin 1,3,4,6.

Characteristic Curves

Fig.1 Junction Capacitance vs Reverse Voltage

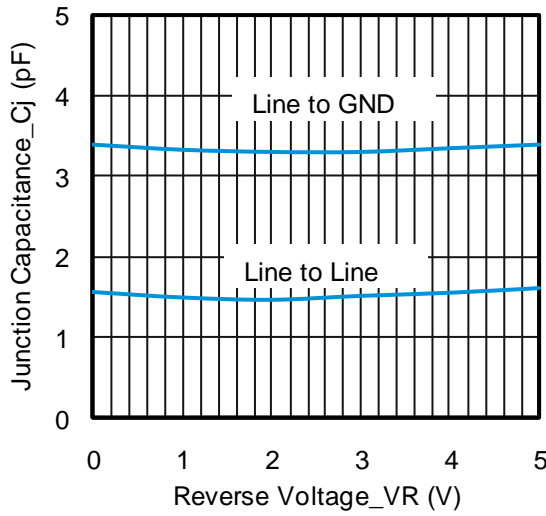


Fig.2 Peak Pulse Power vs Pulse Time

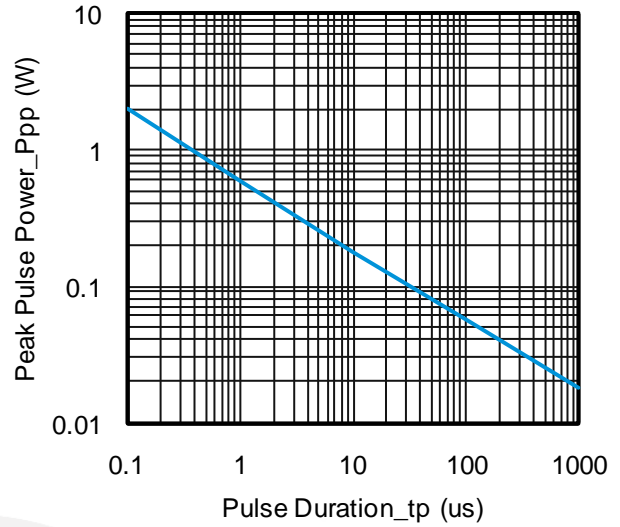


Fig.3 Clamping Voltage vs Peak Pulse Current

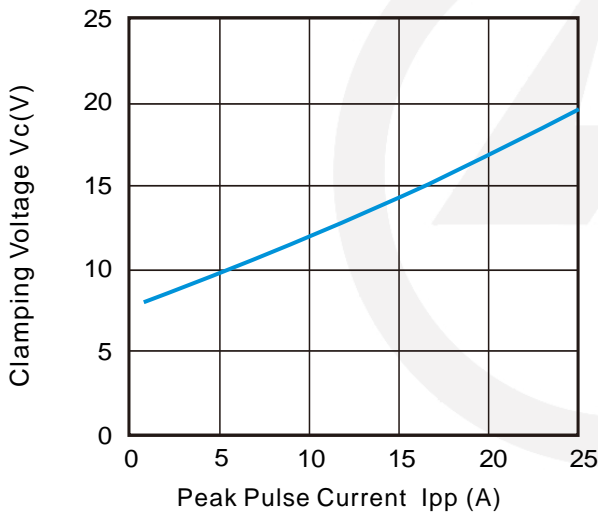


Fig.4 Power Derating Curve

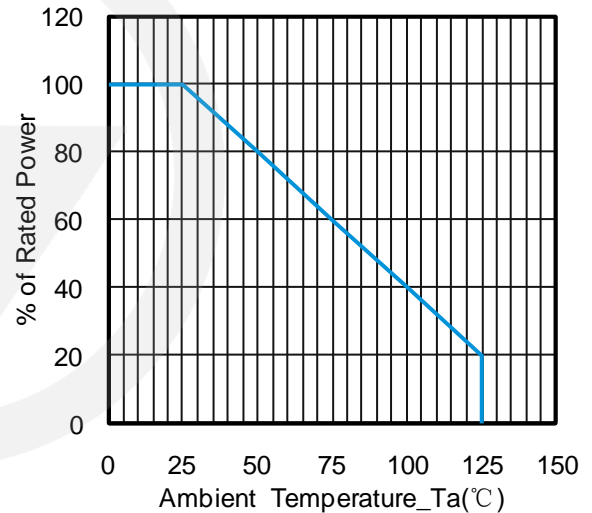
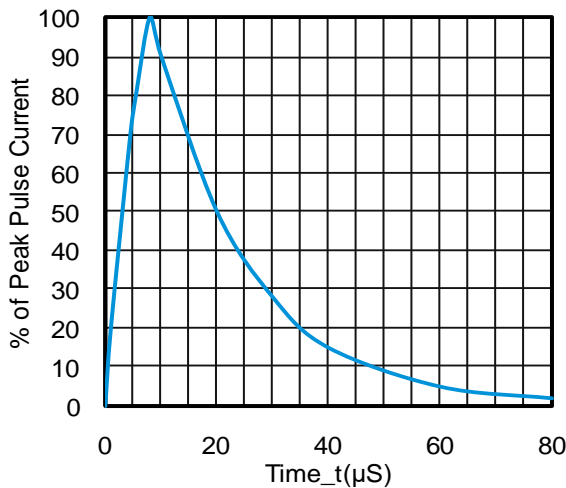
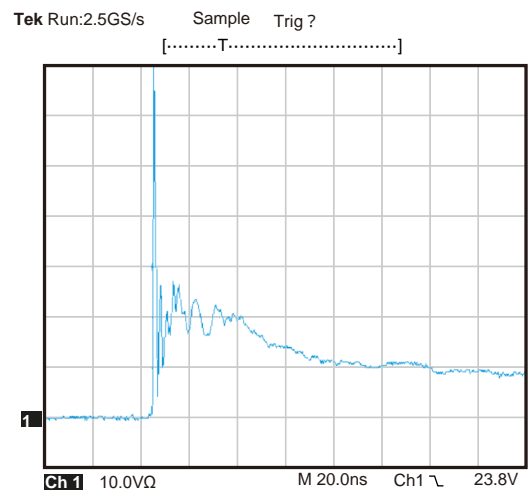


Fig.5 8 X 20µs Pulse Waveform



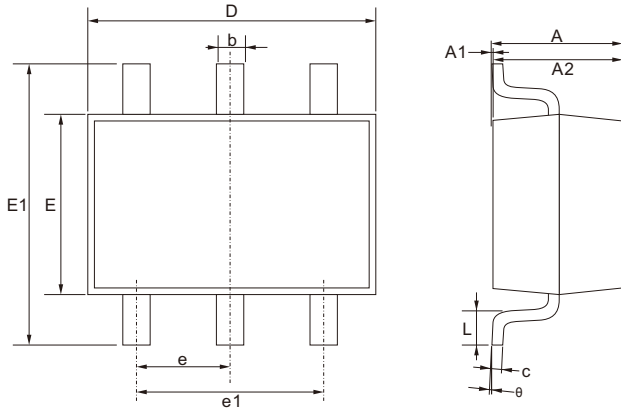
**Fig.6 ESD Clamping Voltage
8 kV Contact per IEC61000-4-2**





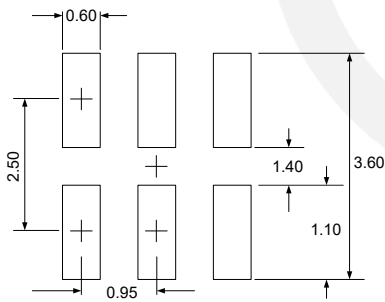
SOT-26 Package Outline

Unit: mm



SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	1.050	1.250
A1	0.000	0.100
A2	1.050	1.150
b	0.300	0.500
c	0.100	0.200
D	2.820	3.020
E	1.500	1.700
E1	2.650	2.950
e	0.950 TYP.	
e1	1.800	2.000
L	0.300	0.600
θ	0°	8°

SOT-26 Suggested Pad Layout

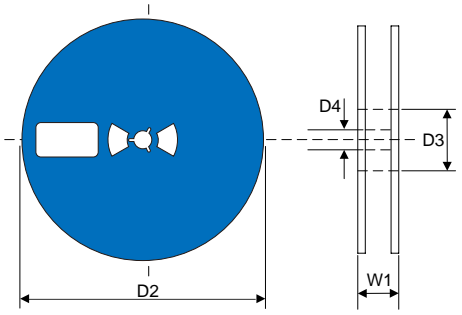


Note:

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

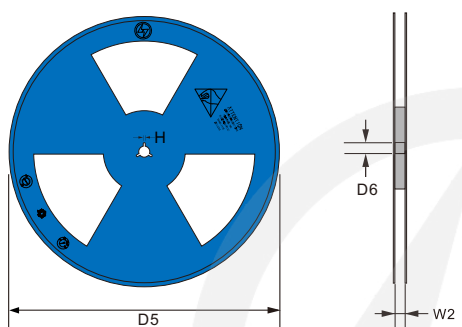
Reel Dimensions

Unit : mm

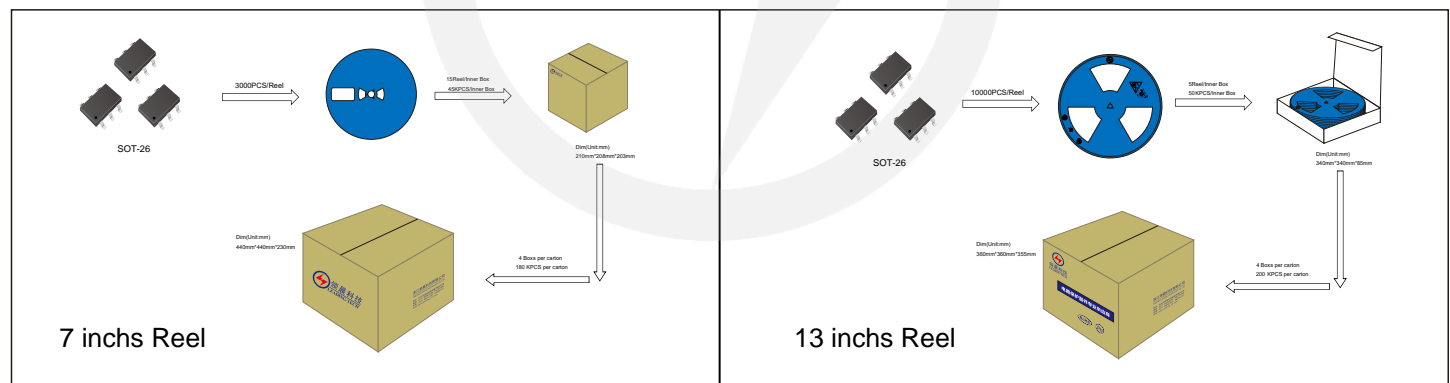
<p>7" Reel</p> 	D2	$\Phi 178.0 \pm 2.0$
	D3	$\Phi 50$
	D4	13.0 ± 0.5
	W1	12 ± 0.5
	Quantity: 3000PCS	

Reel Dimensions

Unit : mm

<p>13" Reel</p> 	D5	$\Phi 330.0 \pm 2.0$
	D6	$\Phi 13.5 \pm 0.5$
	H	2.5 ± 1.0
	W2	12 ± 0.5
	Quantity: 10000PCS	

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	2024.05.16	2024.05.16	3.0	New File	/	Ding	