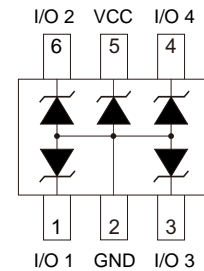
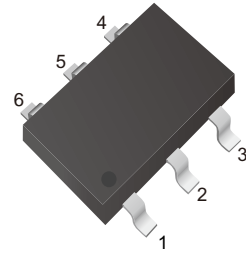


Ultra Low Capacitance ESD Protection Diode

Features

- Transient protection for high-speed data lines
IEC 61000-4-2(ESD) $\pm 20\text{KV}$ (Contact)
 $\pm 25\text{KV}$ (Air)
IEC 61000-4-4(EFT)40A(5/50ns)
Cable Discharge Event(CDE)
- Package optimized for high-speed lines
- Small package(2.9mm*2.8mm*1.1mm)
- Protects four data lines and one Vcc line
- Low capacitance: 0.20pF (I/O to I/O)
- Low leakage current
- Low clamping voltage
- Each I/O pin can withstand over 1000 ESD strikes
for $\pm 8\text{KV}$ contact discharge
- Lead free in comply with EU RoHS 2011/65/EU directives



Mechanical Datas

- Case:SOT-26
- Flammability Rating: UL 94V-0
- Terminal: Matte tin plated
- Material:Halogen free

Applications

- Serial ATA
- MDDI Ports
- USB 2.0/3.0 Power and Data Line Protection
- Display Ports
- High Definition Multi-Media Interface (HDMI)
- Digital Visual Interface (DVI)

Ordering Information

Part Number	Marking	Shipping	Reel
LTE26T05A04T-TR3	V05	3000PCS Tape&Reel	7 inches
LTE26T05A04T-TR10	V05	10000PCS Tape&Reel	13 inches

Absolute Maximum Ratings

Symbol	Parameter	Value	Unit
P_{PP}	Peak Pulse Power (8/20 μ s)	60	W
V_{ESD}	ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	± 25 ± 20	kV
T_{OPT}	Operating Temperature	-55/+125	$^{\circ}\text{C}$
T_{STG}	Storage Temperature	-55/+150	$^{\circ}\text{C}$

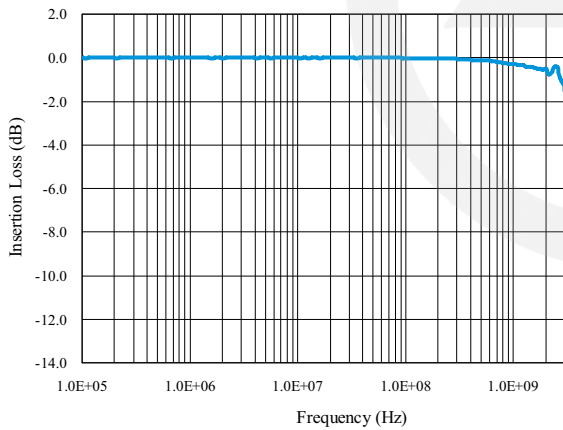
Electrical Characteristics ($T_a=25^\circ\text{C}$)

Symbol	Parameter	Test Condition	Min	Typ	Max	Unit
V_{RWM}	Reverse Working Voltage	Any I/O pin to GND			5.0	V
V_{BR}	Reverse Breakdown Voltage	$I_T = 1\text{mA}$ Any I/O pin to GND	6.0		9.0	V
I_R	Reverse Leakage Current	$V_{RWM} = 5\text{V}$ Any I/O pin to GND			1.0	μA
V_C	Clamping Voltage	$I_{PP} = 1\text{A}, t_p = 8/20\mu\text{s}$ Any I/O pin to GND			10	V
		$I_{PP} = 4\text{A}, t_p = 8/20\mu\text{s}$ Any I/O pin to GND			15	V
		$I_{PP} = 8\text{A}, t_p = 8/20\mu\text{s}$ Vcc pin to GND			15	V
C_{ESD}	Parasitic Capacitance	$V_R = 0\text{V}, f = 1\text{MHz}$ Between I/O and I/O		0.20	0.50	pF
		$V_R = 0\text{V}, f = 1\text{MHz}$ Between I/O and GND		0.45	0.80	pF
		$V_R = 0\text{V}, f = 1\text{MHz}$ Between Vcc and GND		0.80		pF

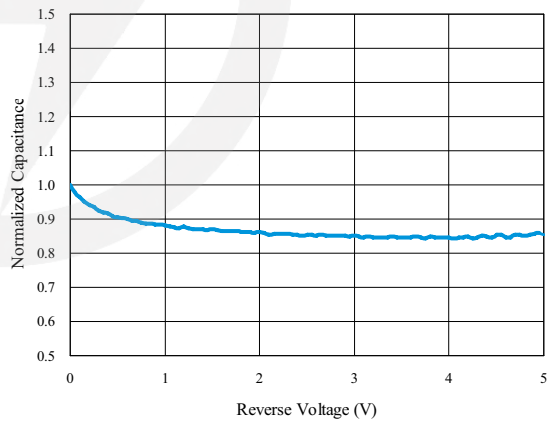
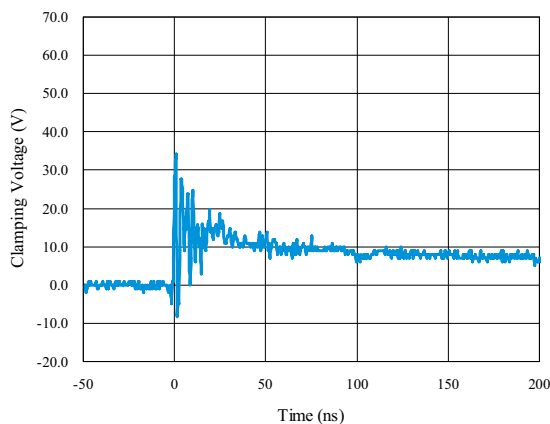
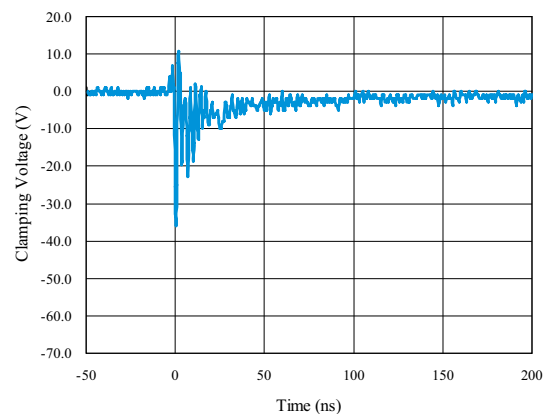
Note: I/O Pins are pin 1,3,4,6. Pin 5 is Vcc. Pin 2 is GND.

Electrical Characteristics Curve

Insertion Loss S21 of I/O to GND



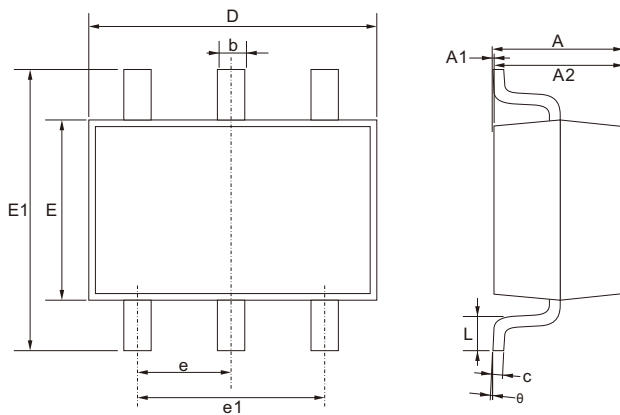
Normalized Capacitance vs. Reverse Voltage


 ESD Clamping
 (+8kV Contact per IEC 61000-4-2)

 ESD Clamping
 (-8kV Contact per IEC 61000-4-2)




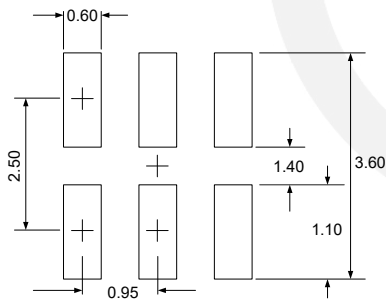
SOT-26 Package Outline

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

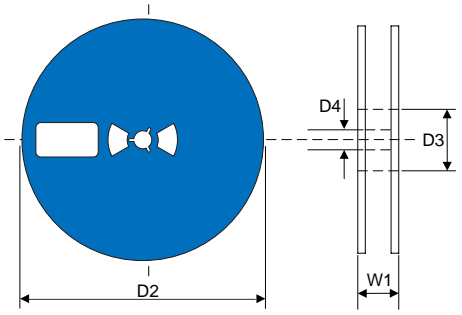


Note:

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

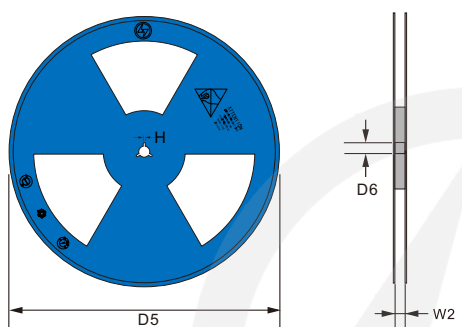
Reel Dimensions

Unit : mm

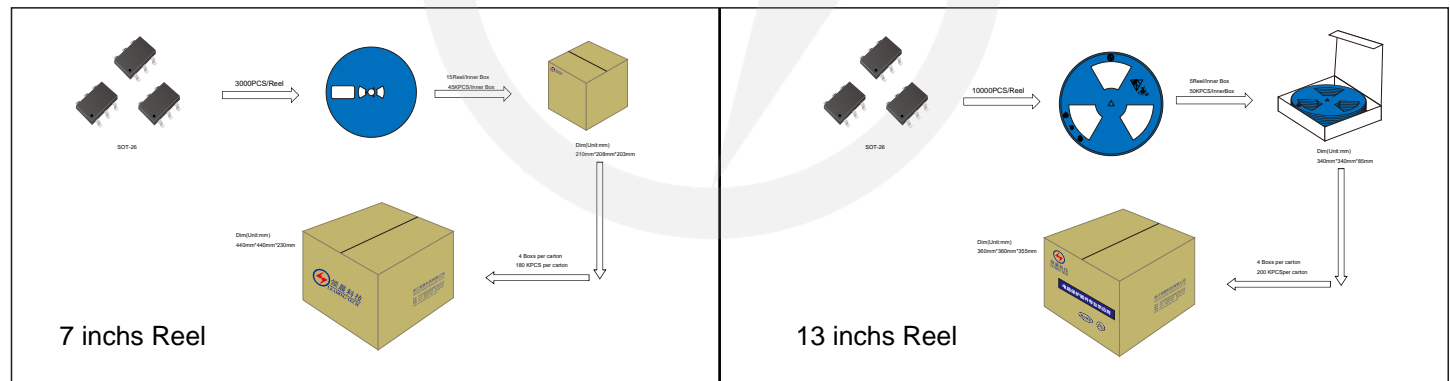
<p>7" Reel</p> 	D2	$\Phi 178.0 \pm 2.0$
	D3	$\Phi 50$
	D4	13.0 ± 0.5
	W1	12 ± 0.5
	Quantity: 3000PCS	

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	
02	2025.06.17	2025.06.17	3.1	Update packaging information	/	Ding	