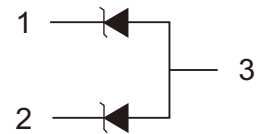
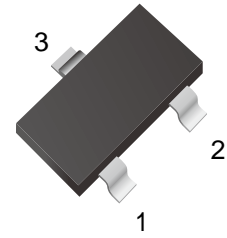


TVS Diode Array

Features

- IEC61000-4-2 (ESD) $\pm 30\text{kV}$ (air), $\pm 30\text{kV}$ (contact)
- IEC61000-4-4 (EFT) 40A (5/50ns)
- 350 Watts Peak Pulse Power per (tp=8/20 μs)
- Protects one bidirectional line or two
- Low clamping voltage unidirectional lines
- Working voltages : 3.3V~36V
- Low leakage current
- Lead free in comply with EU RoHS 2011/65/EU directives
- Moisture Sensitivity Level1



Mechanical Data

- Case: SOT-23
- Flammability Rating: UL 94V-0

Applications

- Cell Phone Handsets and Accessories
- Microprocessor based equipment
- Personal Digital Assistants (PDA's)
- Notebooks, Desktops, and Servers
- Portable Instrumentation
- Networking and Telecom
- Serial and Parallel Ports.
- Peripherals

Ordering Information

Part Number	Shipping	Reel
LTE23TxxA02G-TR3	3000PCS Tape&Reel	7 inchs
LTE23TxxA02G-TR12	12000PCS Tape&Reel	13 inchs

Absolute Maximum Ratings

Symbol	Parameter	Value	Unit
V _{ESD}	ESD per IEC 61000-4-2 (Air)	±30	kV
	ESD per IEC 61000-4-2 (Contact)	±30	
P _{PP}	Peak Pulse Power (8/20μs)	350	W
T _{OPT}	Operating Temperature	-55/+150	°C
T _{STG}	Storage Temperature	-55/+150	°C
T _L	Lead Soldering Temperature	260 (10 sec.)	°C

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

Part Number	Marking	V _{RWM}	V _B	I _r	V _{C@1A}	V _C		I _R	C _J
		(V) (max.)	(V) (min.)	(mA)	(V) (max.)	(V) (max.)	(@A)	(μA) (max.)	(pF) (max.)
LTE23T03A02G	M03	3.3	4	1	7.0	14	20	40	450
LTE23T05A02G	M05	5	6	1	9.8	18	17	10	300
LTE23T08A02G	M08	8	8.5	1	13.4	24	15	2	240
LTE23T12A02G	M12	12	13.3	1	19	32	11	1	130
LTE23T15A02G	M15	15	16.7	1	24	38	10	1	120
LTE23T18A02G	M18	18	20	1	29	45	9	1	100
LTE23T20A02G	M20	20	22.3	1	35	50	8	1	90
LTE23T24A02G	M24	24	26.7	1	43	52	7	1	80
LTE23T36A02G	M36	36	40	1	60	75	5	1	60



Characteristics Curves

Fig.1 8x20μs Waveform per IEC61000-4-5

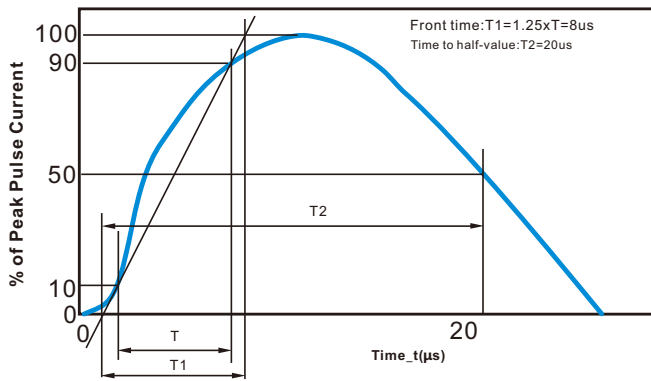


Fig.2 Contact Discharge Current Waveform per IEC 61000-4-2

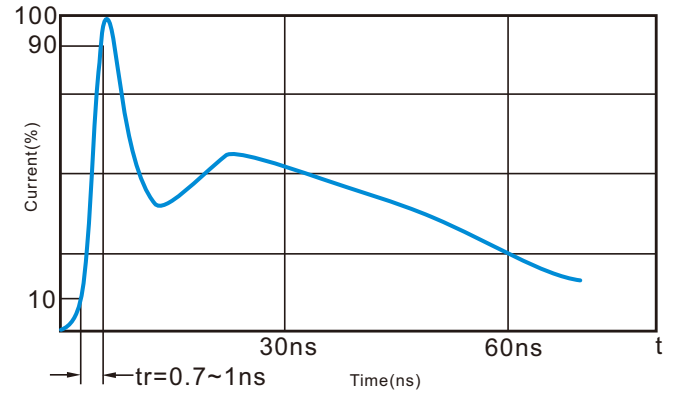


Fig.3 Voltage vs Capacitance

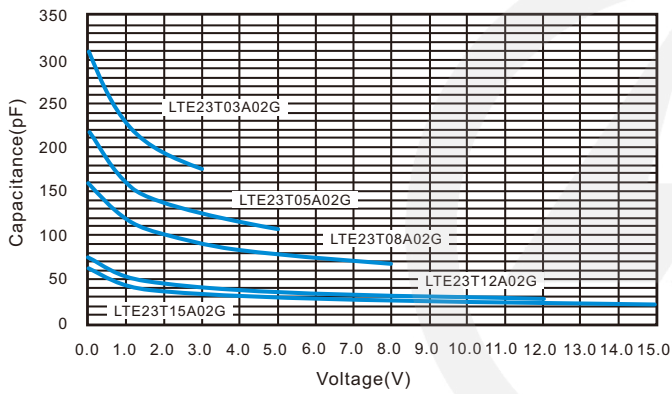


Fig.4 Voltage vs Capacitance

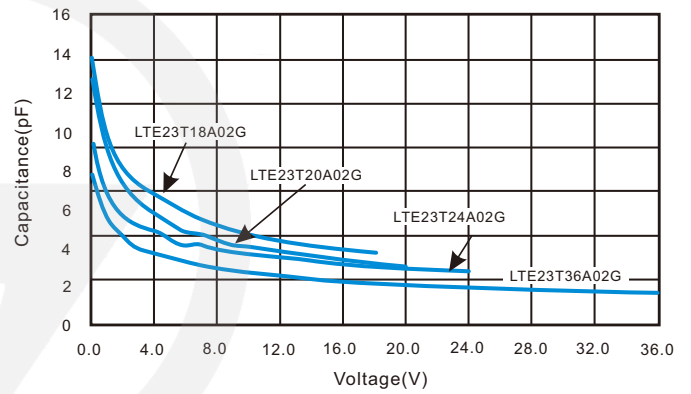


Fig.5 Clamping Voltage vs. Peak Pulse Current($t_p=8/20\mu s$)

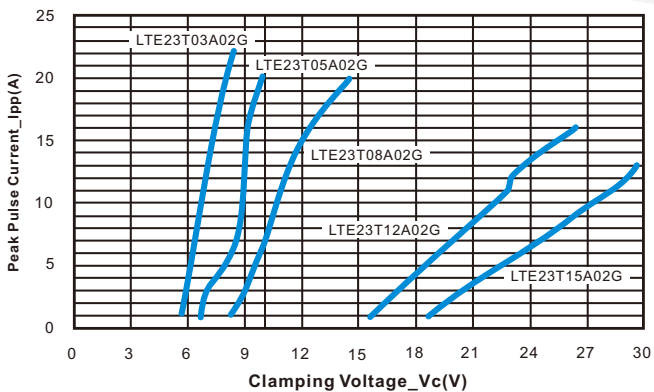
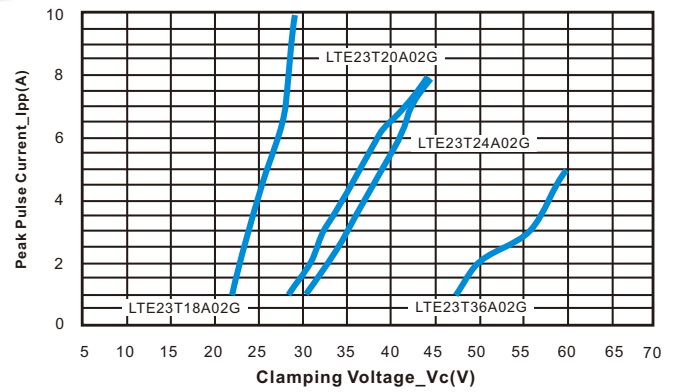
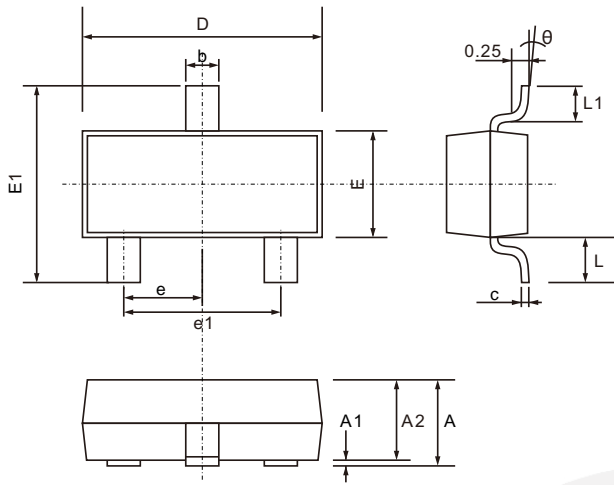


Fig.5 Clamping Voltage vs. Peak Pulse Current($t_p=8/20\mu s$)



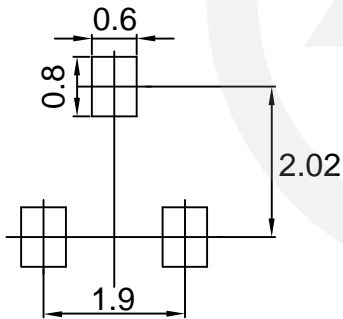
SOT-23 Package Outline

Unit: mm



SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	0.900	1.200
A1	0.000	0.100
A2	0.900	1.050
b	0.300	0.500
c	0.080	0.200
D	2.700	3.100
E	1.200	1.400
E1	2.200	2.600
e	0.950 TYP.	
e1	1.750	2.050
L	0.550 TYP.	
L1	0.300	0.500
θ	0°	8°

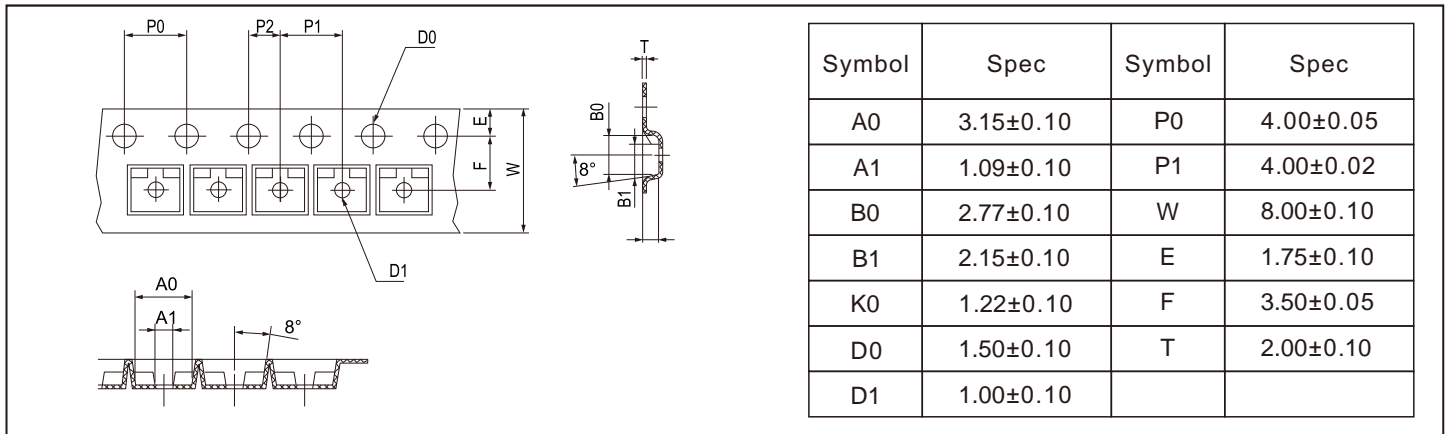
SOT-23 Suggested Pad Layout



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

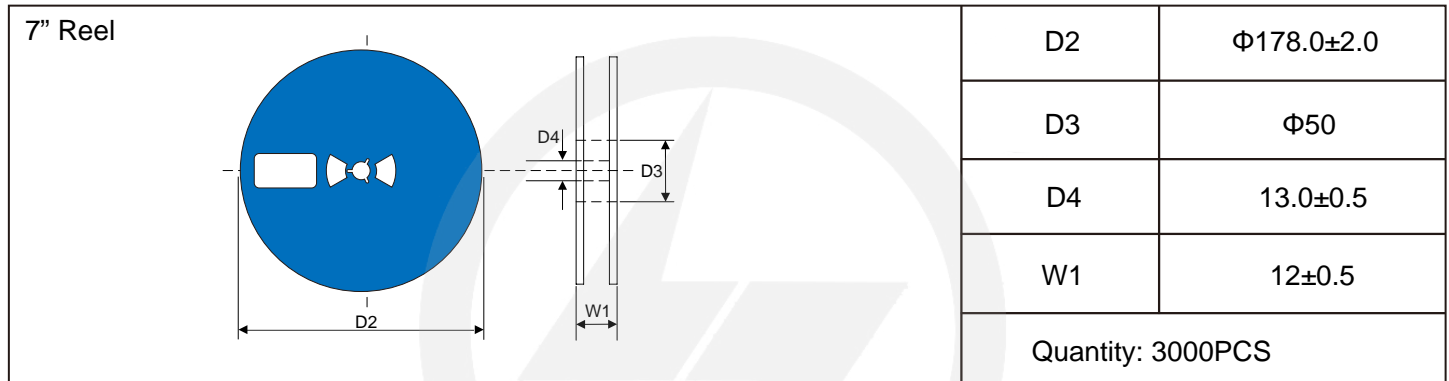
Carrier Tape Dimensions

Unit : mm



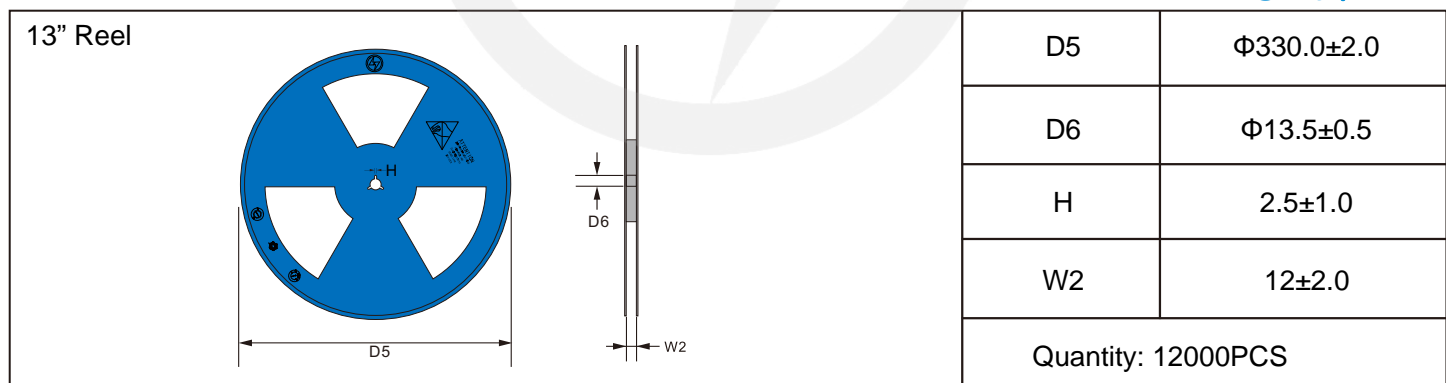
Reel Dimensions

Unit : mm

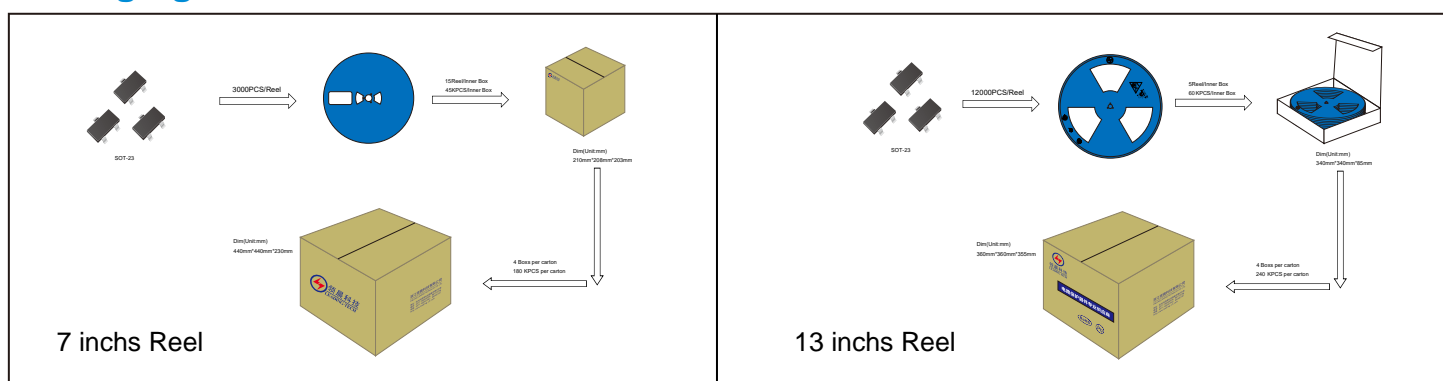


Reel Dimensions

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	2024.03.18	2024.03.18	3.0	New file	/	Ding	
02	2025.06.11	2025.06.11	3.1	Update packaging information	/	Ding	
03	2026.03.04	2026.03.04	3.2	Package outline E1(max)=2.6mm	/	Ding	