Features

- IEC61000-4-2 (ESD) ±30KV (air), ± 30KV(contact)
  IEC61000-4-4 (EFT) 40A (5/50ns)
- 350 Watts Peak Pulse Power per (tp=8/20us)
- Protects one I/O line (Unidirectional)
- Working voltages : 5V,8V,12V,15V,18V,24V
- Low leakage current

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

Mechanical Characteristics

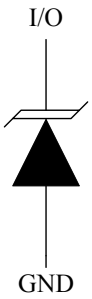
- SOD-523 Package
- Flammability Rating: UL 94V-0
- Packaging: Tape and Reel
- High temperature soldering guaranted:260℃/10s
- Reel size: 7 inch

Description

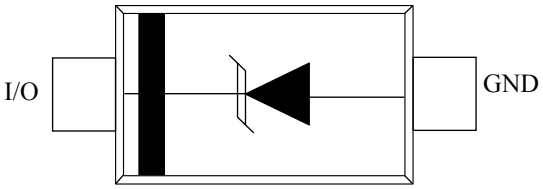
The TSxx11LDX Series is designed for applications requiring transient overvoltage protection capability. They are intended for use in voltage and ESD sensitive equipment such as computers, printers , business machines , communication systems , medical equipment and other applications. These devices are ideal for situations where board space is at a premium.

This series has been specifically designed to protect sensitive components which are connected to power data and transmission lines from overvoltage caused by ESD(electrostatic discharge), CDE (Cable Discharge Events) , and EFT (electrical fast transients).

Circuit Diagram



Pin Configuration



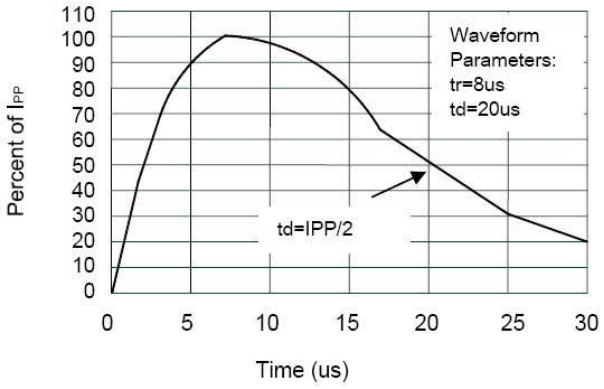
SOD-523
(Top View)

Absolute Maximum Rating

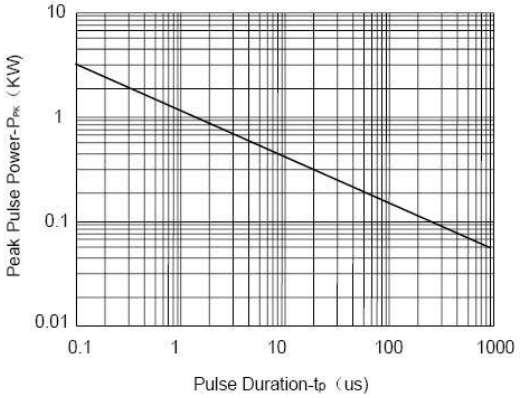
Symbol	Parameter	Value	Units
V_{ESD}	ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	±30 ±30	kV
P_{PP}	Peak Pulse Power (8/20μs)	350	W
T_{OPT}	Operating Temperature	-55/+150	℃
T_{STG}	Storage Temperature	-55/+150	℃
T_L	Lead Soldering Temperature	260 (10 sec.)	℃

Electrical Characteristics (T = 25°C)

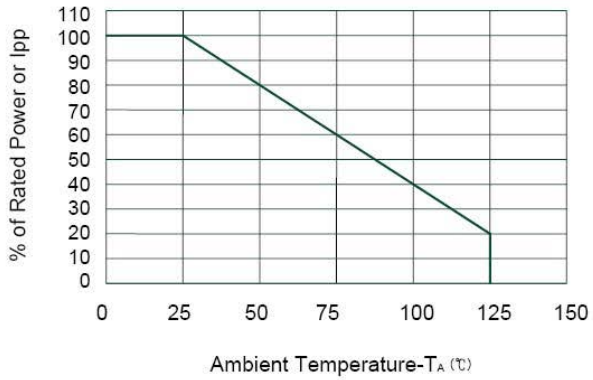
PART NUMBER	V_{RWM} (V) (max.)	V_B (V) (min.)	I_T (mA)	V_C@1A (V) (max.)	V_C (V) (max.)	(@A)	I_R (μA) (max.)	C_T (pF) (max.)	DEVICE MARKING
TS0511LDX	5	6	1	10	16	24	0.1	150	5D
TS0811LDX	8	9.2	1	13	20	15	0.1	100	AD
TS1211LDX	12	13.3	1	18	25	10	0.1	90	BD
TS1511LDX	15	16.7	1	24	30	7	0.1	50	CD
TS1811LDX	18	20.4	1	29	35	6	0.1	30	DD
TS2411LDX	24	26.7	1	35	48	5	0.1	30	ED



Pulse Waveform



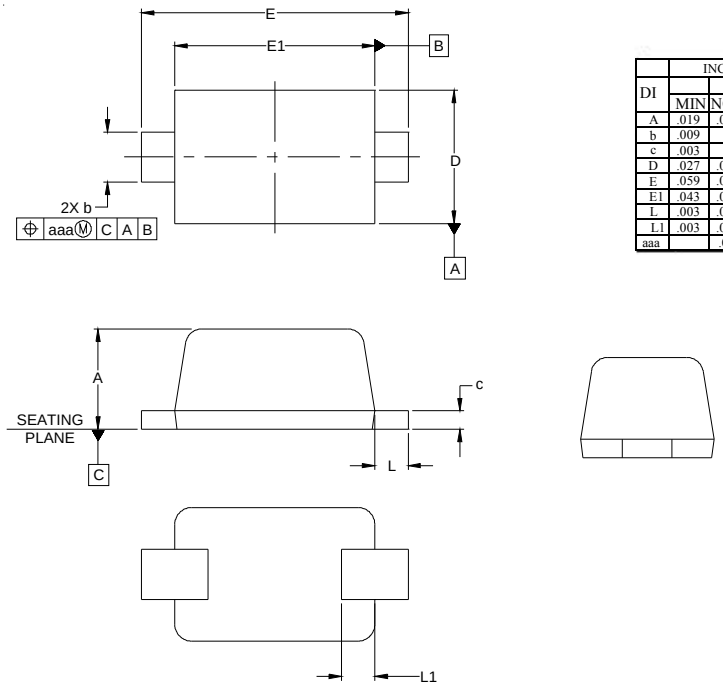
Non-Repetitive Peak Pulse Power vs. Pulse Time



Power Derating Curve

Package Outline Demensions

Outline Drawing (SOD-523)

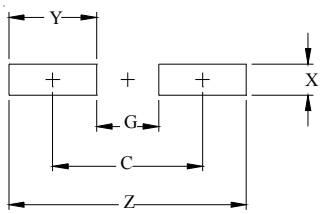


DI	INCHES			MILLIMETERS		
	MIN	NO	MA	MIN	NO	MA
A	.019	.023	.027	0.50	0.60	0.70
b	.009	-	.013	0.25	-	0.35
c	.003	-	.008	0.10	-	0.20
D	.027	.031	.035	0.70	0.80	0.90
E	.059	.063	.067	1.50	1.60	1.70
E1	.043	.047	.051	1.10	1.20	1.30
L	.003	.008	.011	0.10	0.20	0.30
L1	.003	.005	.008	0.10	0.15	0.20
aaa		.008			0.20	

NOTES:

1. CONTROLLING DIMENSIONS ARE IN MILLIMETERS (ANGLES IN DEGREES).
2. DIMENSIONS "E1" AND "D" DO NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS.

Land Pattern

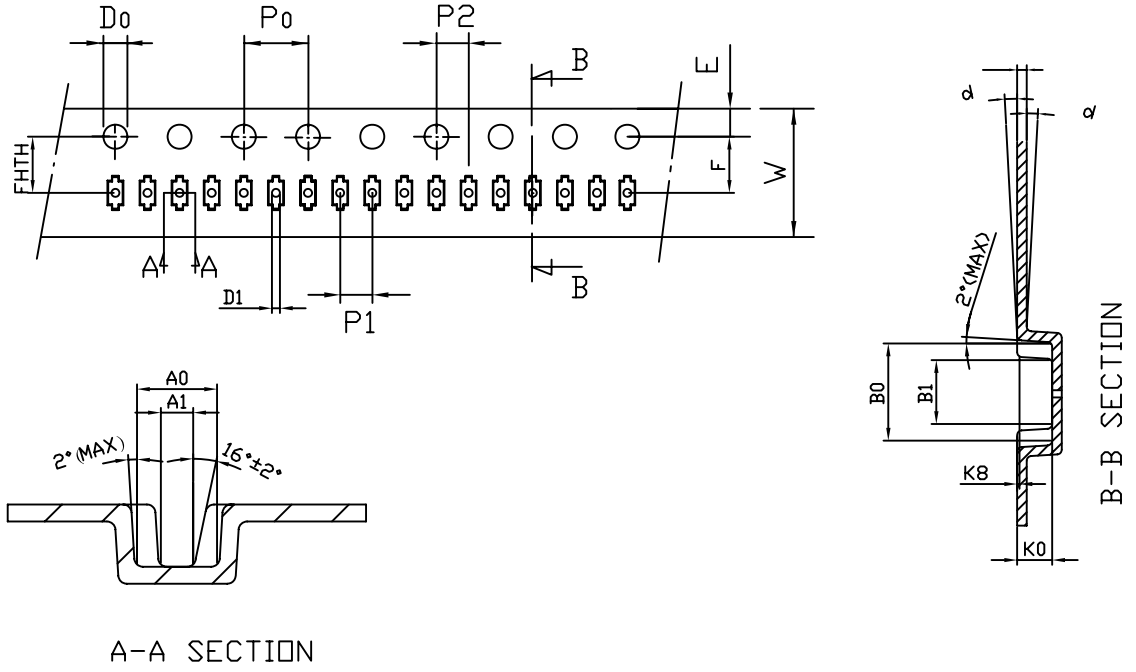


DIMENSIONS		
DIM	INCHES	MILLIMETERS
C	(.057)	(1.45)
G	.024	0.60
X	.018	0.45
Y	.033	0.85
Z	.090	2.30

NOTES:

1. THIS LAND PATTERN IS FOR REFERENCE PURPOSES ONLY
   CONSULT YOUR MANUFACTURING GROUP TO ENSURE YOUR COMPANY'S MANUFACTURING GUIDELINES ARE MET

Tape and Reel Specification



unit:mm

symbol	A0	B0	K0	P0	P1	P2	A1	T
Spec	0.90±0.05	1.95±0.05	0.73±0.05	4.0±0.10	2.0±0.05	2.0±0.05	0.39±0.05	0.20±0.02
symbol	E	F	D0	D1	B2	W	10P0	K8
Spec	1.75±0.10	3.50±0.05	$1.50^{+0.10}_{-0}$	0.50±0.05	1.40±0.05	$8.0^{+0.3}_{-0.1}$	40.0±0.10	0.15MAX
symbol	FHTH							
Spec	3.50±0.05							

Ordering Information

Part Number	Working Voltage	Quantity Per Reel	Reel Size
TSxx11LDX	xxV	3,000	7 Inch

Unikeyic Electronics

Global Electronic Components Distributor

Click to view pricing, inventory, delivery, and lifecycle information:

JY:

TS0334PLX JY1106-ADJBX RCLAMP0524P TNM01K20FX TT0314TPX TS0421LEX TT0511TEX TS1811LD-CX TT0201SAX TT0401TBX JY1103-H390BX TL431 TS0321LEX TS0512PMX B5819WX JY1117E50AX JY2312X JY9425X P0300SCX SMCJ20AX TP6063F-TDX TT0514TLX P3100SCX TT0301MAX TS2411LEX JY1103-H330QX JY1106-180EX JY2126AX MMBT3906X TT1501SBX