

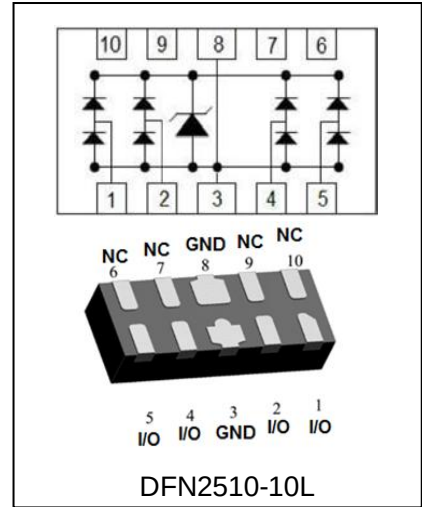
Ultra Low Capacitance TVS Array

TLST0524A

FEATURES

- Very low leakage current ,maximum of 1uA @V_{RWM}
 - RoHS compliant with Halogen-free
 - Qualified to AEC-Q101 Standards
 - IEC 61000-4-2(ESD):Contact ±15KV,Air±17KV
 - IEC 61000-4-4(EFT):40A-5/50 ns
 - IEC 61000-4-5(Surge):4A, 8/20 us
- Level 1(line-ground)&Level 2(line-line)

HF



Applications

- USB3.1, 3.0, 2.0
- HDMI
- LVDS interfaces

ORDERING INFORMATION

Type No.	Marking	Package Code
TLST0524A	0524A	DFN2510-10L

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Parameter	Symbol	Limits	Unit
Peak pulse power t _p =8/20us	P _{PP}	150	W
Peak pulse current t _p =8/20us	I _{PP}	5	A
Thermal Resistance Junction-Ambient	R _{θJA}	340	°C/W
Thermal Resistance Junction-Case	R _{θJC}	175	°C/W
Junction temperature	T _J	-55 ~ +150	°C
Storage Temperature	T _{STG}	-55 ~ +150	°C

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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Reverse Stand-off Voltage	V_{RWM}				5	V
Reverse Breakdown Voltage	V_{BR}	$I_T = 1mA$	6.1			V
Reverse Leakage Current	I_R	$V_R = 5V$			1	μA
Forward Voltage	V_F	$I_F = 15mA$			1.2	V
Clamping Voltage	V_C	$I_{PP} = 1A$			9.8	V
Off State Junction Capacitance	C_J	$V_R = 0V, f = 1MHz$ (Note 1) $V_R = 0V, f = 1MHz$ (Note 2)		0.3	0.8	pF

Note: 1. Any I/O Pin TO Gnd

2. Between I/O Pins

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

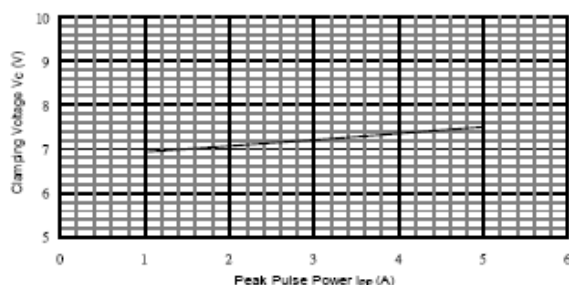


FIG.1 CLAMPING VOLTAGE CURVE

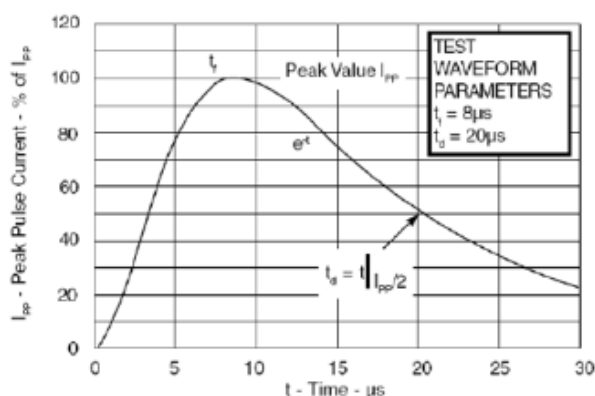


FIG.2 PAUSE WAVE FORM

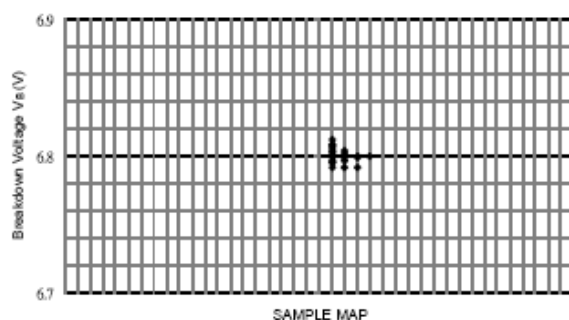


FIG.3 VB MAP

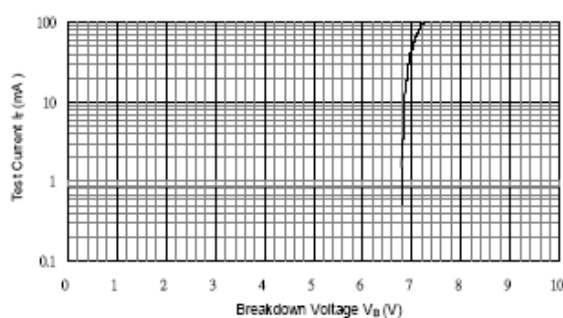


FIG.4 BREAKDOWN VOLTAGE I-V CURVE

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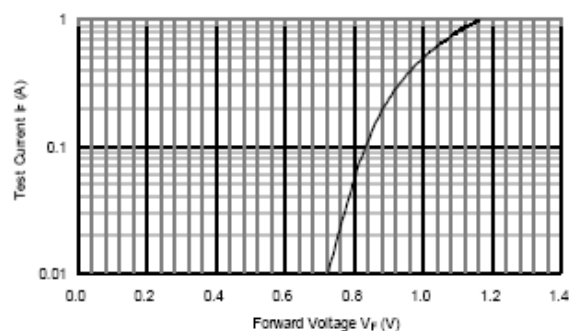


FIG.5 FORWARD VOLTAGE I-V CURVE

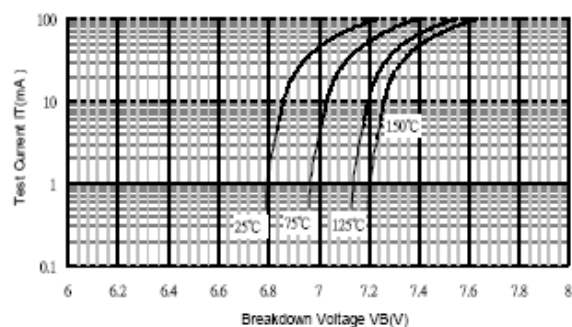


FIG.6 AMBIENT TEMPERATURE BREAKDOWN
VOLTAGE I-V CURVE

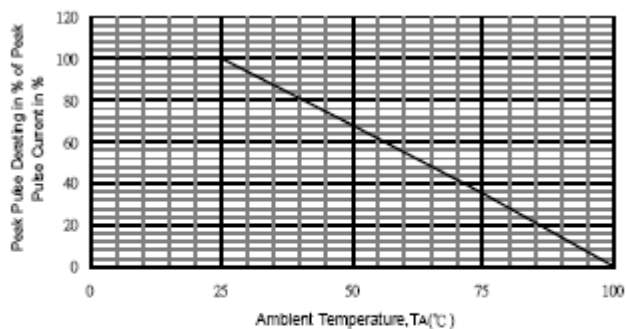


FIG.7 POWER DREATING CURVE

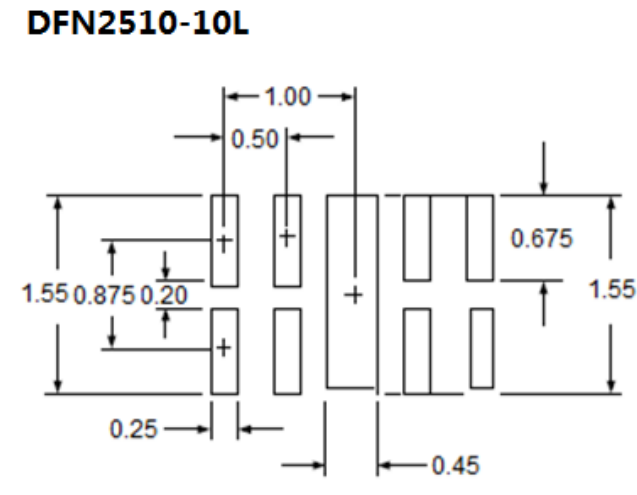
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Package Outline Dimensions (Unit: mm)

DFN2510-10L		
Dimension	Min.	Max.
A	2.400	2.600
B	0.450	0.550
C	0.950	1.050
D	0.350	0.450
E	0.200	0.450
F	0.350	0.450
G	0.400	0.600
H	0.000	0.010
I	0.100	0.200
J	0.100	0.250
K	0.000	0.050
L	0.000	0.095

Mounting Pad Layout (Unit: mm)

DFN2510-10L
 The diagram shows the mounting pad layout for the DFN2510-10L package. Key dimensions include: a central pad width of 1.00 mm, a central pad pitch of 0.50 mm, a central pad length of 0.675 mm, a central pad offset of 0.25 mm, a central pad thickness of 0.45 mm, a central pad height of 0.20 mm, a central pad width of 0.875 mm, a central pad length of 1.55 mm, a central pad offset of 0.25 mm, a central pad thickness of 0.45 mm, and a central pad height of 0.20 mm.

PACKAGE INFORMATION

Part Number	Package	Shipping Quantity
TLST0524A	DFN2510-10L	3000 pcs / Tape & Reel