

# MSKSEMI 美森科

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

## **LXES1UTAA1-MS**

**Product specification**

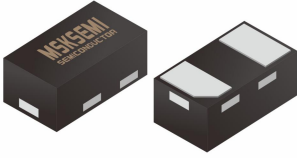
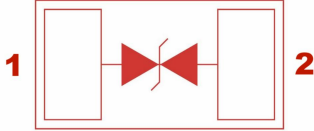

## Features

- Ultra Low Capacitance: 0.30pF(typ.)
- Reverse Working Voltage: 5V
- IEC 61000-4-2 (ESD Air):  $\pm 20\text{kV}$   
IEC 61000-4-2 (ESD Contact):  $\pm 20\text{kV}$   
IEC 61000-4-5 (Lightning 8/20 $\mu\text{s}$ ): 5A

## Applications

- Smart Phone and Tablet PC
- TV and Set Top Box
- Wearable Devices
- PDA

## Reference News

PACKAGE OUTLINE	PIN Configuration	Marking
		
DFN-2		

## Limiting Values( $T_A = 25^\circ\text{C}$ , unless otherwise specified)

Symbol	Parameter	Conditions	Min	Max	Unit
$V_{\text{ESD}}$	Electrostatic Discharge Voltage	IEC 61000-4-2; Contact Discharge	-	$\pm 20$	kV
		IEC 61000-4-2; Air Discharge	-	$\pm 20$	kV
$P_{\text{PP}}$	Peak Pulse Power	$t_P = 8/20 \mu\text{s}$	-	110	W
$I_{\text{PPM}}$	Rated Peak Pulse Current	$t_P = 8/20 \mu\text{s}$	-	5.0	A
$T_A$	Operating Temperature Range	-	-55	125	$^\circ\text{C}$
$T_{\text{stg}}$	Storage Temperature Range	-	-55	150	$^\circ\text{C}$

## Electrical Characteristics( $T_A = 25\text{ }^{\circ}\text{C}$ unless otherwise specified)

Symbol	Parameter	Conditions	Min	Typ.	Max	Unit
$V_{RWM}$	Reverse Working Voltage	$T_A = 25\text{ }^{\circ}\text{C}$	-	-	5.0	V
$V_{BR}$	Breakdown Voltage	$I_R = 1\text{mA}$ ; $T_A = 25\text{ }^{\circ}\text{C}$	6.0	8.5	9.5	V
$I_R$	Reverse Leakage Current	$V_{RWM} = 5\text{V}$ ; $T_A = 25\text{ }^{\circ}\text{C}$	-	-	0.1	$\mu\text{A}$
$V_C$	Clamping Voltage	$I_{PP} = 1\text{A}$ , $t_p = 8/20\mu\text{s}$	-	-	10	V
		$I_{PP} = 5.0\text{A}$ , $t_p = 8/20\mu\text{s}$	-	-	22	V
$C_J$	Junction Capacitance	$V_R = 0\text{V}$ , $f = 1\text{ MHz}$	-	0.30	0.40	pF

## Typical Characteristics

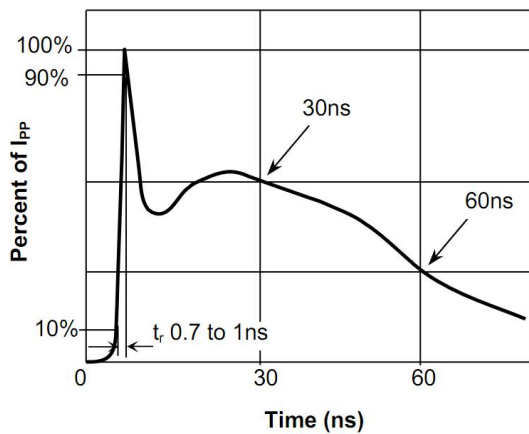


Fig.1 Pulse Waveform-ESD (IEC61000-4-2)

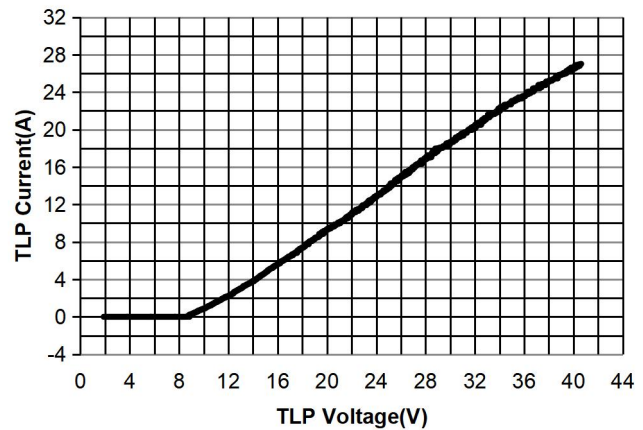


Fig.2 Transmission Line Pulse (TLP)

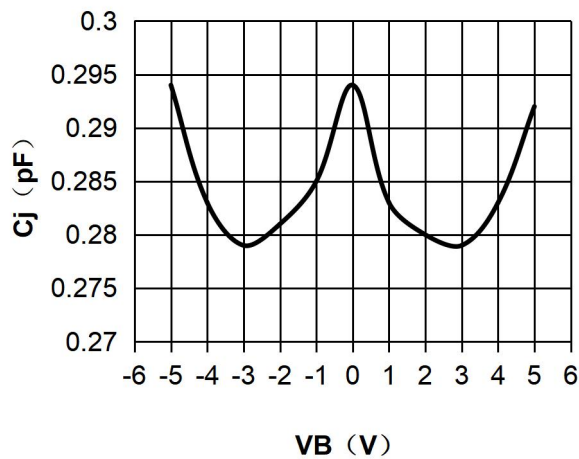


Fig.3 Capacitance vs. Reverse Voltage

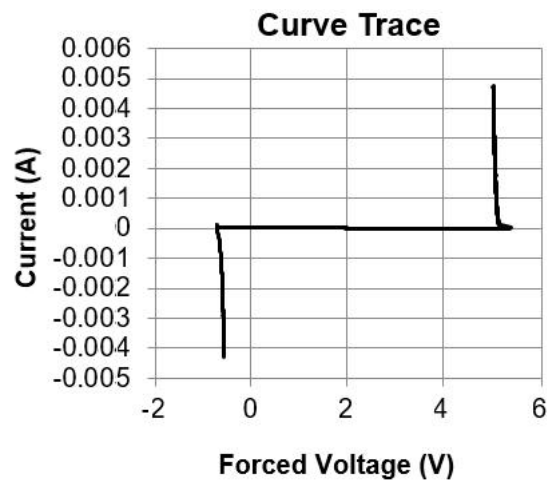
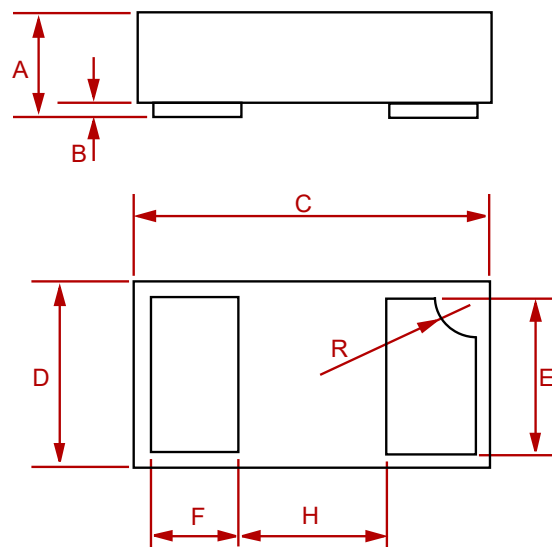


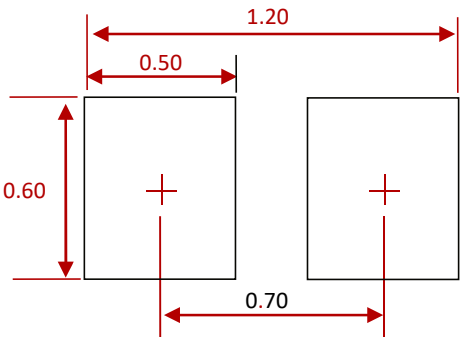
Fig.4 IV Curve

PACKAGE MECHANICAL DATA



Dim	Inches		Millimeters	
	MIN	MAX	MIN	MAX
A	0.0125	0.02	0.32	0.52
B	0.000	0.002	0.00	0.05
C	0.037	0.043	0.95	1.080
D	0.022	0.027	0.55	0.680
E	0.016	0.024	0.40	0.60
F	0.008	0.012	0.20	0.30
H	0.015Typ.		0.40Typ.	
R	0.001	0.005	0.05	0.15

Suggested Pad Layout



- NOTES:
1. CONTROLLING DIMENSIONS ARE IN MILLIMETERS (ANGLES IN DEGREES).
  2. THIS LAND PATTERN IS FOR REFERENCE PURPOSES ONLY.  
CONSULT YOUR MANUFACTURING GROUP TO ENSURE YOUR  
COMPANY'S MANUFACTURING GUIDELINES ARE MET.

REEL SPECIFICATION

P/N	PKG	QTY
LXES1UTAA1-MS	DFN-2	10000

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