

# MSKSEMI 美森科

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

## LESDA6V1W6T1G-MS

Product specification

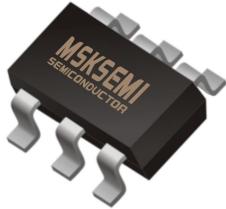
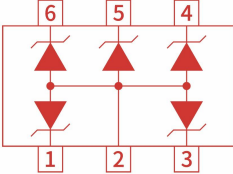
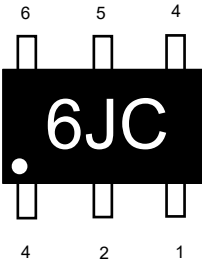
## FEATURES

- IEC 61000-4-2 Level 4 ESD Protection
  - $\pm 30\text{kV}$  Contact Discharge
  - $\pm 30\text{kV}$  Air Discharge
- 150W Peak pulse Power (8/20us)
- Low clamping voltage
- Working voltage: 5V
- Low leakage current
- RoHS compliant
- Protecting 5 unidirectional lines
- Capacitance: 100pF Typ.

## APPLICATIONS

- Cellular Handsets and Accessories
- Cordless Phones
- Personal Digital Assistants (PDA's)
- Notebooks & Handhelds
- Digital Cameras
- Portable Instrumentation

## Pin Configuration and Functions

PACKAGE OUTLINE	PIN CONFIGURATION	Marking
		
SOT-323-6		

Pin	Name	Description
1	IO1	Connect to I/O
2	GND	Connect to GND
3	IO2	Connect to I/O
4	IO3	Connect to I/O
5	IO4	Connect to I/O
6	IO5	Connect to I/O

## ABSOLUTE MAXIMUM RATING

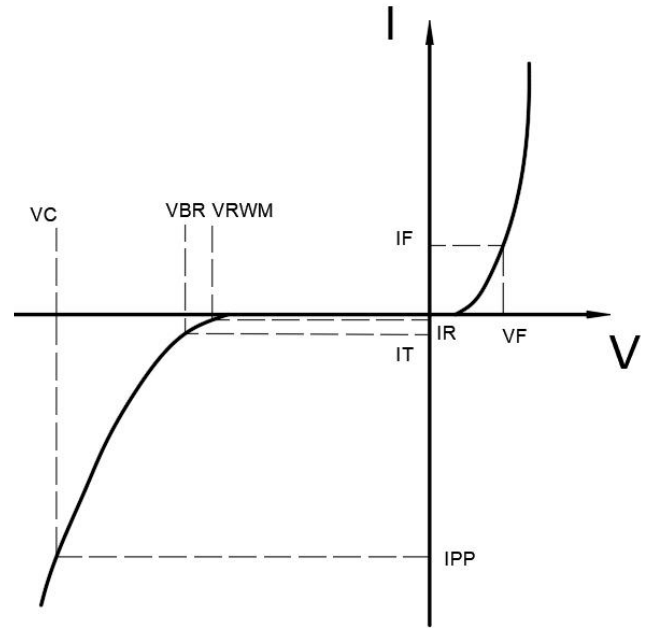
Over operating free-air temperature range (unless otherwise noted)

Parameters	Symbol	Min.	Max.	Unit
Peak pulse power (tp=8/20us)@25°C	P <sub>pk</sub>	-	100	W
Peak pulse current (tp=8/20us)@25°C	I <sub>PP</sub>		12	A
ESD (IEC61000-4-2 air discharge) @25°C	V <sub>ESD</sub>	-	±30	kV
ESD (IEC61000-4-2 contact discharge) @25°C	V <sub>ESD</sub>	-	±30	kV
Junction temperature	T <sub>J</sub>	-	150	°C
Operating temperature	T <sub>OP</sub>	-40	125	°C
Storage temperature	T <sub>STG</sub>	-55	150	°C
Lead temperature	T <sub>L</sub>	-	260	°C

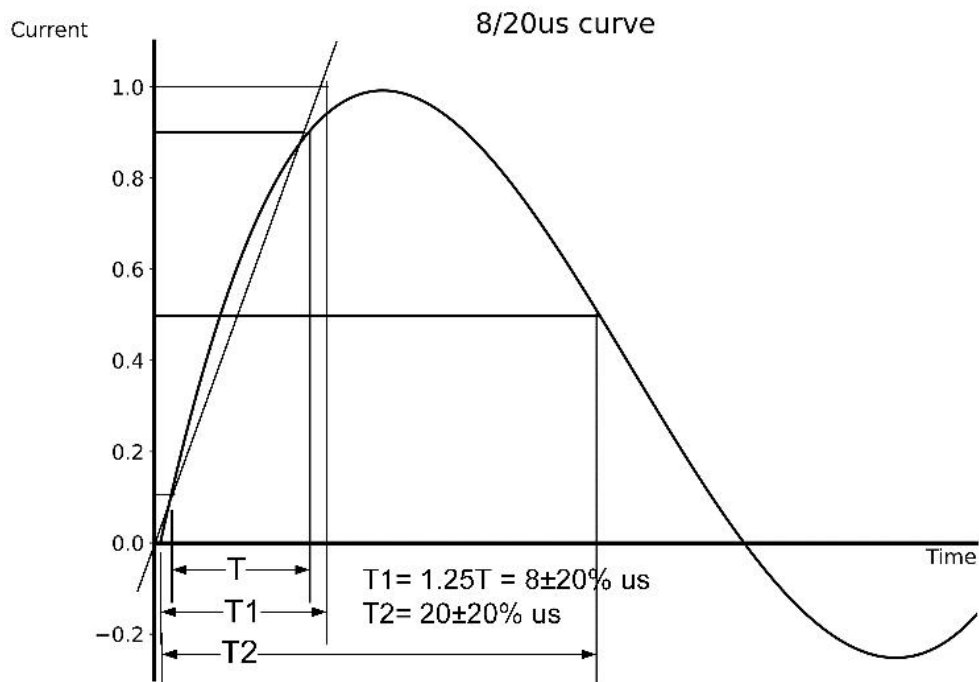
## ELECTRICAL CHARACTERISTICS (Tamb=25 °C)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Stand-off Voltage	V <sub>RWM</sub>				5	V
Reverse Breakdown Voltage	V <sub>BR</sub>	I <sub>T</sub> =1mA	6			V
Reverse Leakage Current	I <sub>R</sub>	V <sub>RWM</sub> =5V			1	uA
Clamping Voltage	V <sub>C</sub>	I <sub>PP</sub> =1A; tp=8/20us		7.5		V
Clamping Voltage	V <sub>C</sub>	I <sub>PP</sub> =12A; tp=8/20us		11		V
Junction Capacitance	C <sub>J</sub>	I/O to GND; VR=0V; f=1MHz		100		pF

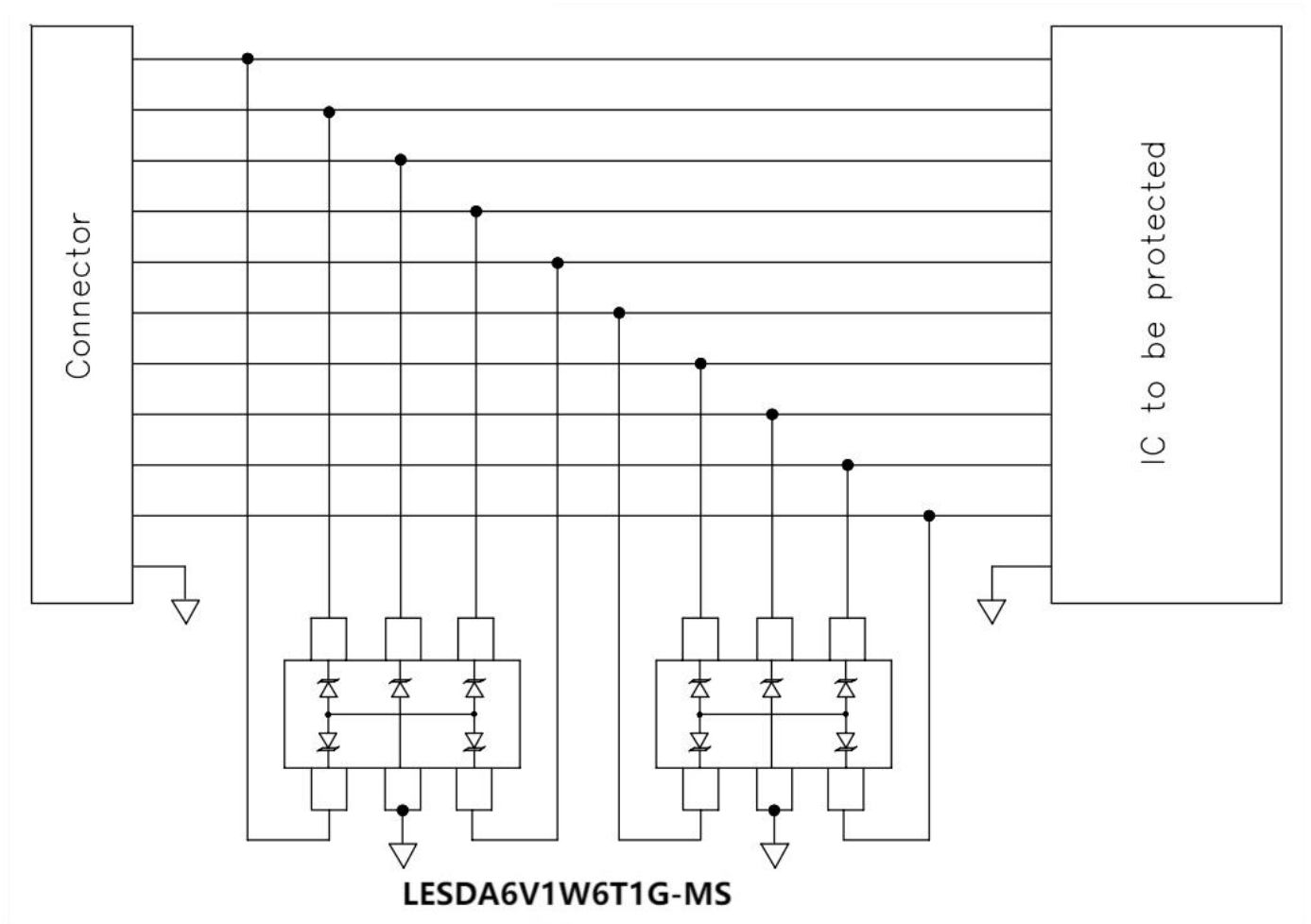
Symbol	Parameters
$V_{RWM}$	Peak Reverse Working Voltage
$I_R$	Reverse Leakage Current @ $V_{RWM}$
$V_{BR}$	Breakdown Voltage @ $I_T$
$I_T$	Test Current
$I_{PP}$	Maximum Reverse Peak Pulse Current
$V_C$	Clamping Voltage @ $I_{PP}$
$I_F$	Forward Current
$V_F$	Forward Voltage @ $I_F$



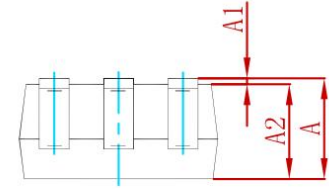
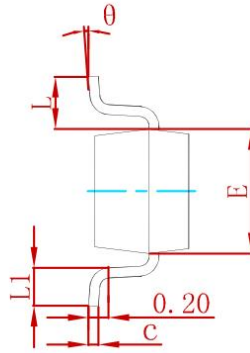
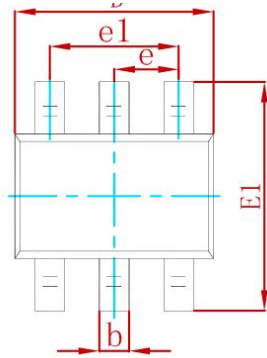
## Typical Characteristic



## Typical Application

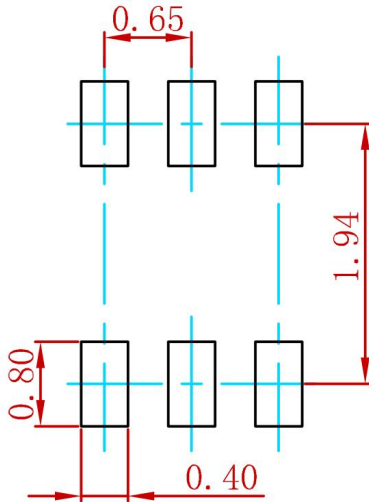


## PACKAGE MECHANICAL DATA



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.150	0.350	0.006	0.014
c	0.100	0.150	0.004	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.400	0.085	0.094
e	0.650 TYP		0.026 TYP	
e1	1.200	1.400	0.047	0.055
L	0.525 REF		0.021 REF	
L1	0.260	0.460	0.010	0.018
$\theta$	0°	8°	0°	8°

## Suggested Pad Layout



Note:

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

## REEL SPECIFICATION

P/N	PKG	QTY
LESDA6V1W6T1G-MS	SOT-323-6	3000

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