

# MSKSEMI 美森科

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

## ESDA6V1SC6-MS

Product specification

**Features**

- Protects up to 5 lines
- Low leakage: nA level
- Low clamping voltage
- Excellent surge protection (80W at 8/20µs)
- Complies with following standards:
  - IEC 61000-4-2 (ESD) immunity test  
Air discharge: ±20kV  
Contact discharge: ±20kV
  - IEC61000-4-4 (EFT) 40A (5/50ns)
  - IEC61000-4-5 (Lightning) 18A (8/20ps)
- RoHS Compliant

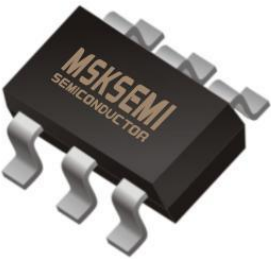
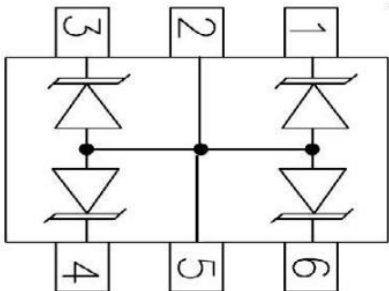

**Applications**

- Audio Players
- Peripherals
- Portable Instrumentation
- Desktops PC and Servers
- Microprocessor Based Equipment
- Cell Phone Handsets and Accessories
- Notebook, Laptop, and Palmtop Computers

**Mechanical Characteristics**

- Lead Finish: Matte Tin
- Case Material: “Green” Molding Compound
- UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 3 per J-STD-020
- Terminal Connections: See Diagram Below
- Marking Information: See Below

**Reference News**

PACKAGE OUTLINE	Pin Configuration	Marking
		
<p>SOT-23-6</p>		

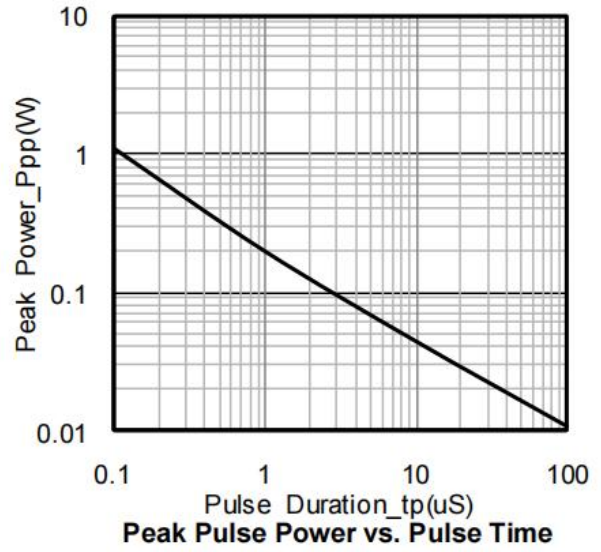
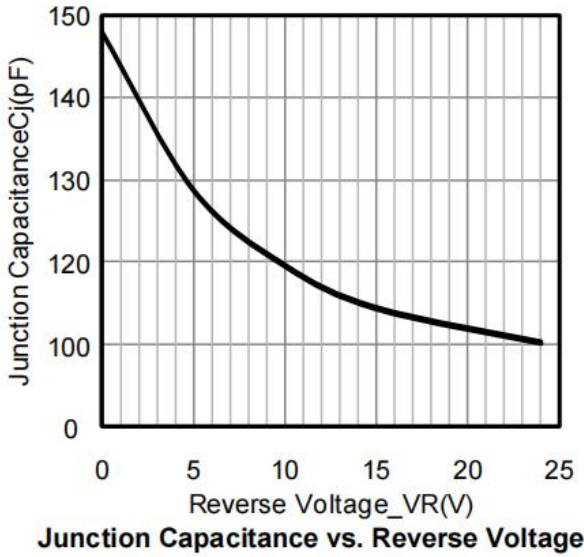
**Absolute Maximum Ratings** (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20µs)	P <sub>pp</sub>	350	W
ESD per IEC 61000-4-2 (Air)	V <sub>ESD</sub>	±20	Kv
ESD per IEC 61000-4-2 (Contact)		±20	
Operating Temperature Range	T <sub>J</sub>	-55 to +125	°C
Storage Temperature Range	T <sub>STJ</sub>	-55 to +150	°C

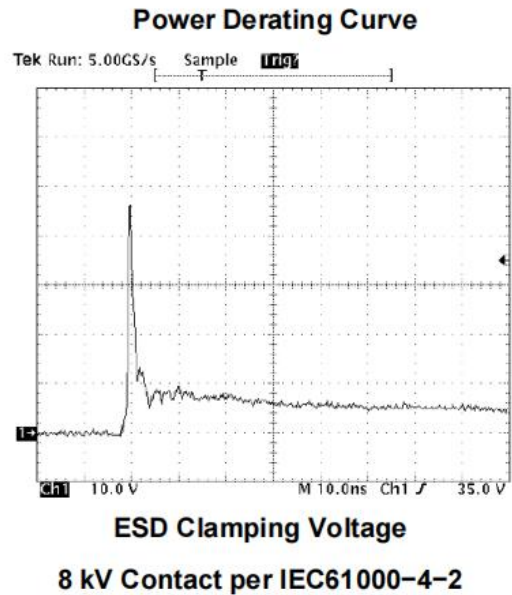
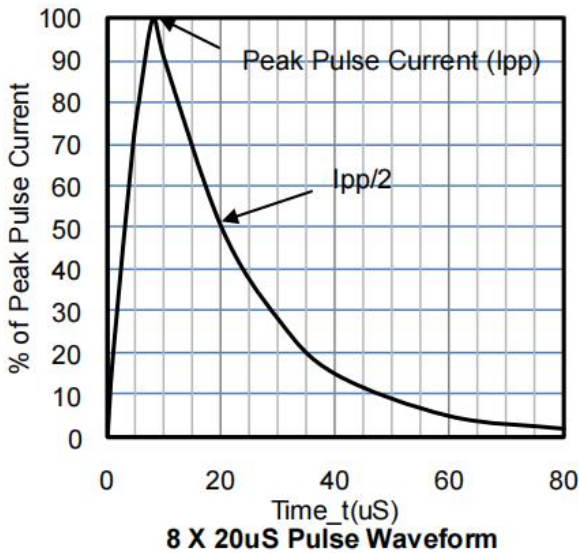
**Electrical Characteristics** (TA=25°C unless otherwise specified)

P/N	V <sub>RWM</sub> (V)	V <sub>BR</sub> (V)	I <sub>r</sub> (mA)	V <sub>c</sub> @1A	V <sub>c</sub>		I <sub>R</sub> µA (Max)	C (Pf) (Typ.)
					(Max)	(@A)		
ESDA6V1SC6-MS	5.5	6	1	15	20	18	1.0	150

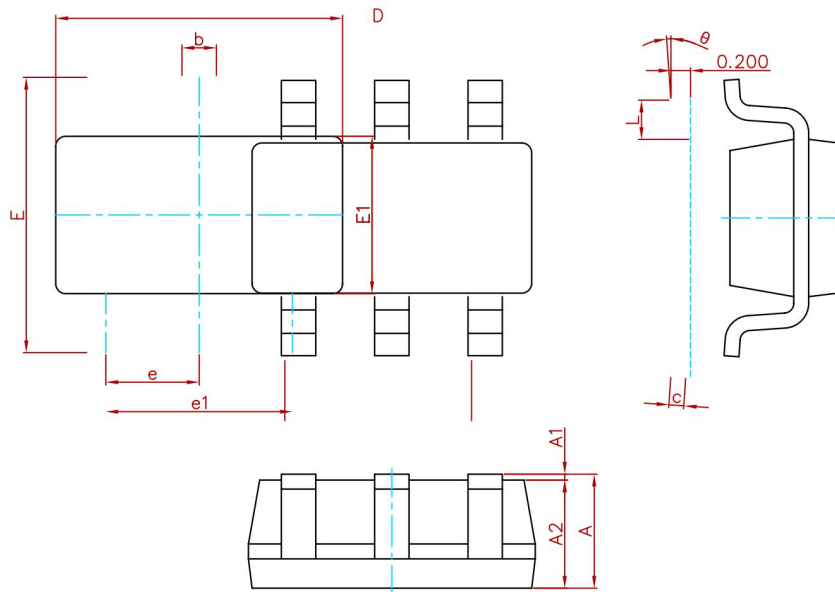
**Typical Characteristics** @ $T_a=25^{\circ}\text{C}$  unless otherwise specified



**Clamping Voltage vs. Peak Pulse Current ( $t_p = 8/20\mu\text{s}$ )**

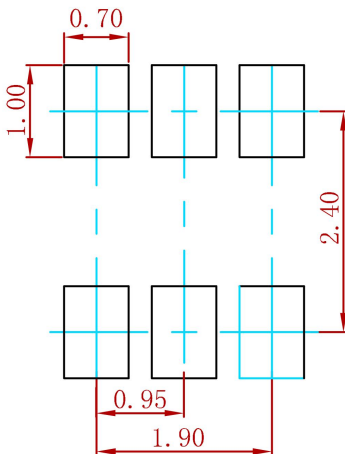


**PACKAGE MECHANICAL DATA**



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.300	0.500	0.012	0.020
c	0.100	0.200	0.004	0.008
D	2.820	3.020	0.111	0.119
E1	1.500	1.700	0.059	0.067
E	2.650	2.950	0.104	0.116
e	0.950 (BSC)		0.037 (BSC)	
e1	1.800	2.000	0.071	0.079
L	0.300	0.600	0.012	0.024
θ	0°	8°	0°	8°

**Suggested Pad Layout**



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: ±0.05mm.
3. The pad layout is for reference purposes only.

**REEL SPECIFICATION**

P/N	PKG	QTY
ESDA6V1SC6-MS	SOT-23-6	3000

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