

MSKSEMI

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT

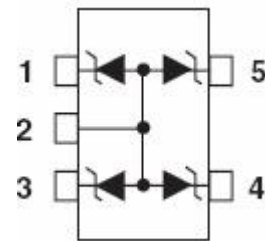
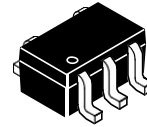


PLED

Product data sheet

Features

- 4 Unidirectional Transil functions
- Breakdown voltage:
- VBR = 6.1 V min. and 25 V min.
- Low leakage current: < 1 mA
- Very small PCB area < 4.2 mm² typically
- High ESD protection level: up to 25 kV
- High integration
- Pb-Free Package is Available
- S- Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q101 Qualified and PPAP Capable.



Complies with the following standards

IEC61000-4-2

Level 4 16 kV (air discharge)

9 kV(contact discharge)

MIL STD 883E - Method 3015-7 Class 3

25 kV HBM (Human Body Model)

SOT-323-5

Applications

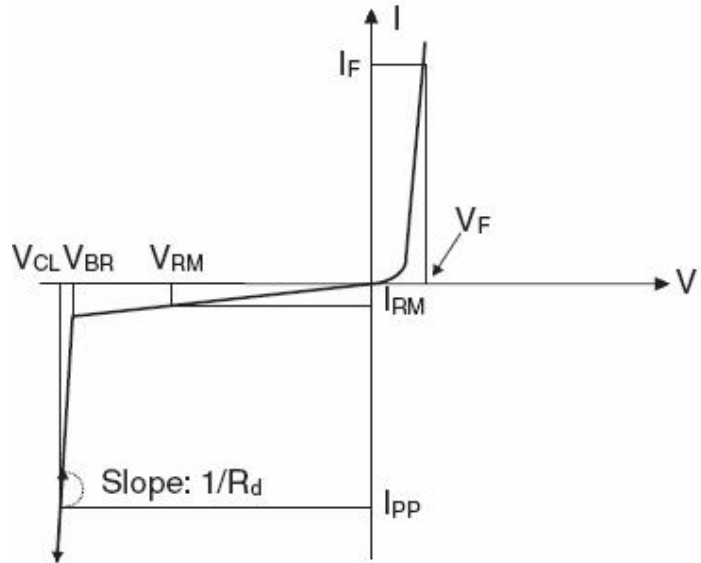
- Computers
- Printers
- Communication systems
- Cellular phones handsets and accessories
- Wireline and wireless telephone sets
- Set top boxes

Absolute Ratings (T_{amb}=25°C)

Symbol	Parameter	Value	Units
P _{PP}	Peak Pulse Power (t _p = 8/20μs)	150	W
T _L	Maximum lead temperature for soldering during 10s	260	°C
T _{stg}	Storage Temperature Range	-40 to +125	°C
T _{op}	Operating Temperature Range	-40 to +125	°C

Electrical Parameter

Symbol	Parameter
V_{RM}	Stand-off voltage
V_{BR}	Breakdown voltage
V_{CL}	Clamping voltage
I_{RM}	Leakage current
I_{PP}	Peak pulse current
I_R	Reverse current
I_F	Forward current
αT	Voltage temperature coefficient
V_F	Forward voltage drop
C	Capacitance
R_d	Dynamic

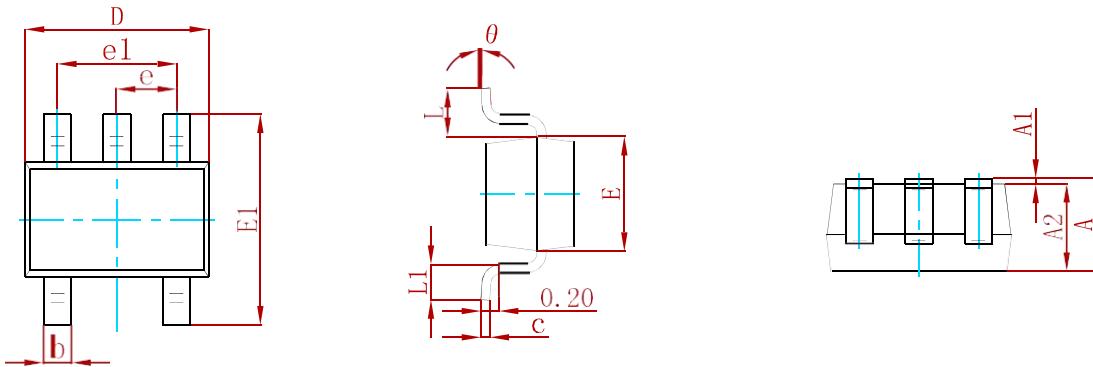


Electrical Characteristics

P/N	V_{BR}		I_R	V_{RM}	I_{RM}	V_F	I_F	R_d	αT	C
	Min.	Max.				Max.		Typ. ⁽¹⁾	Max. ⁽²⁾	Typ. 0v bias
	v	v				v		Ω	$10^{-4}/^{\circ}C$	pF
ESDA6V1W5-MS	6.1	7.2	1	5	1	1.25	200	0.61	6	90

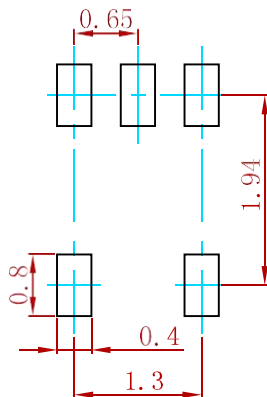
1. Square pulse $I_{PP}=15A, t_p=2.5\mu s$ 2. $V_{BR}=\alpha T * (T_{amb}-25^{\circ}C) * V_{BR}(25^{\circ}C)$

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
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
ESDA6V1W5-MS	SOT-323-5	3000

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