



TM

Micro Commercial Components

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**ESDA6V1L**

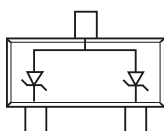
## Features

- Dual Transil Array For ESD Protection
- 2 Unidirectional Transil Functions
- Low leakageCurrent:  $I_{Rmax} < 20 \mu A$  at  $V_{WM}$
- 300W peak pulse power (8/20 us)
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL rating 1

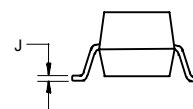
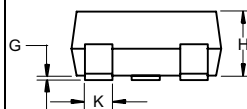
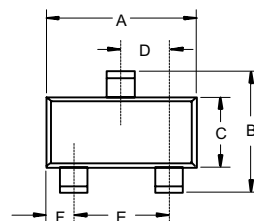
## Maximum Ratings

Parameter	Symbol	Limits	unit
Electrostatic discharge MIL STD 883C-Method 3015-6 IEC61000-4-2 air discharge IEC61000-4-2 contact discharge	$V_{PP}$	25 16 9	KV KV KV
Peak pulse power 8/20us	$P_{PP}$	300	W
Junction temperature	$T_j$	150	°C
Storage temperature range	$T_{stg}$	-55~+150	°C
Maximum lead temperature For soldering during 10s	$T_L$	260	°C

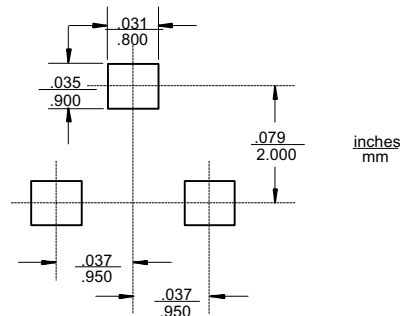
## Pin Configuration-Top View



## SOT-23

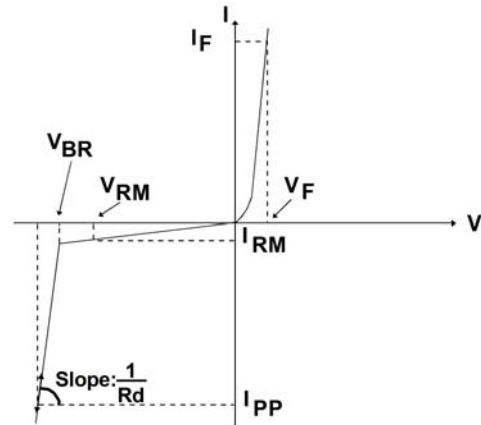


DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.110	.120	2.80	3.04	
B	.083	.098	2.10	2.64	
C	.047	.055	1.20	1.40	
D	.035	.041	.89	1.03	
E	.070	.081	1.78	2.05	
F	.018	.024	.45	.60	
G	.0005	.0039	.013	.100	
H	.035	.044	.89	1.12	
J	.003	.007	.085	.180	
K	.015	.020	.37	.51	



## ELECTRICAL CHARACTERISTICS ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter
$V_{WM}$	Stand-off voltage
$V_{BR}$	Breakdown voltage
$V_{CL}$	Clamping voltage
$I_{RM}$	Leakage current
$I_{PP}$	Peak pulse current
$\alpha T$	Voltage temperature coefficient
C	Capacitance
$R_d$	Dynamic resistance
$V_F$	Forward voltage drop



Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
Breakdown voltage	$I_R=1.0\text{mA}$	$V_{BR}$	6.1	6.65	7.2	V
Leakage current	$V_{WM}=5.25\text{V}$	$I_R$	-	-	20	$\mu\text{A}$
Capacitance	0V bias	C	-	140	-	pF
Forward voltage drop	$I_F=200\text{mA}$	$V_F$	-	-	1.25	V

# ESDA6V1L

**M.C.C.**

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## TYPICAL CHARACTERISTICS

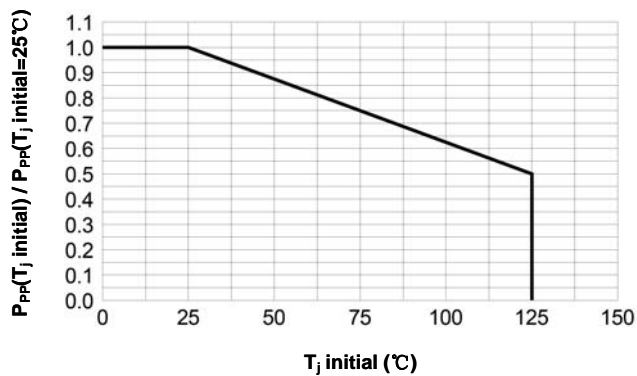


Fig.1: Peak power dissipation vs. initial junction temperature

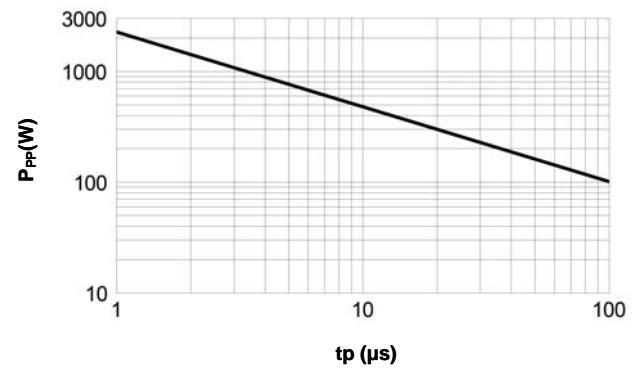


Fig.2: Peak pulse power vs. exponential pulse duration ( $T_j$  initial = 25°C)

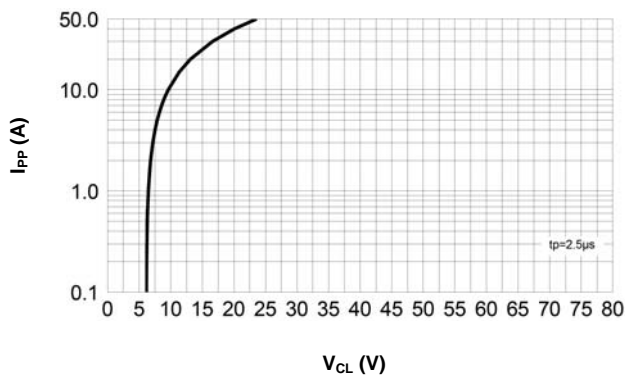


Fig.3: Clamping voltage vs. peak pulse current ( $T_j$  initial = 25°C, rectangular waveform  $t_p = 2.5\mu\text{s}$ )

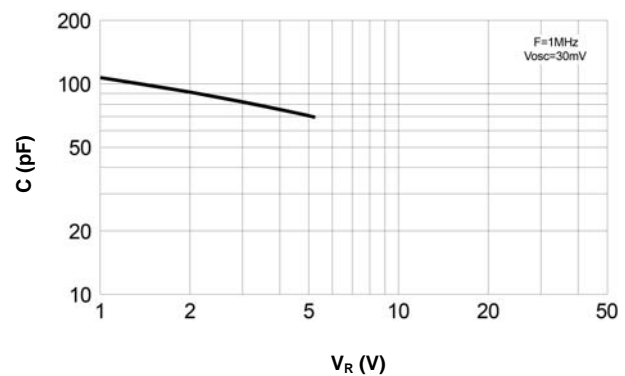


Fig.4: Capacitance vs. reverse applied voltage (typical values)

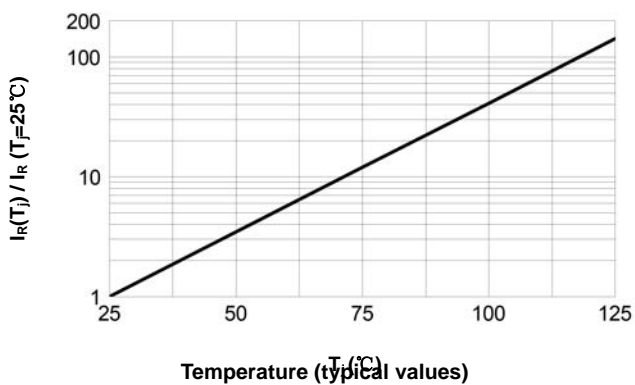


Fig.5: Relative variation of leakage current vs. junction

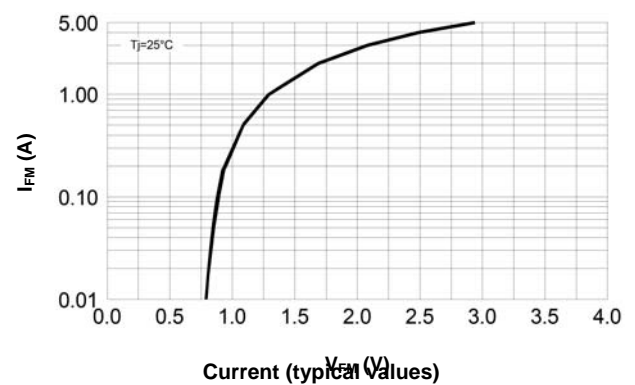


Fig.6: Peak forward voltage drop vs. peak forward

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## Ordering Information

Device	Packing
(Part Number)-TP	Tape&Reel;3Kpcs/Reel

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