



Micro Commercial Components



Micro Commercial Components
20736 Marilla Street Chatsworth
Chatsworth, CA 91311
Phone: (818) 701-4933
Fax: (818) 701-4939

ESDA6V1L

Features

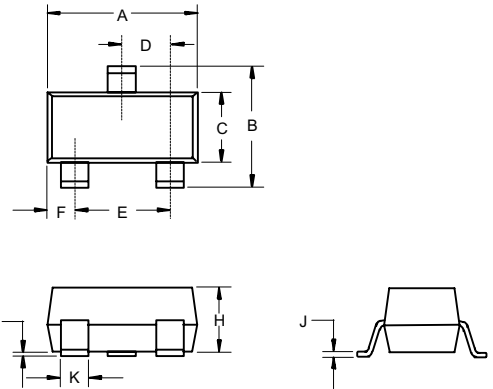
- Dual Transil Array For ESD Protection
- 2 Unidirectional Transil Functions
- Low leakageCurrent: $I_{Rmax} < 20 \mu A$ at V_{WM}
- 300W peak pulse power (8/20 us)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Halogen free available upon request by adding suffix "-HF"

Maximum Ratings

Parameter	Symbol	Limits	unit
Electrostatic discharge MIL STD 883C-Method 3015-6	V_{PP}	25	KV
IEC61000-4-2 air discharge		16	KV
IEC61000-4-2 contact discharge		9	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

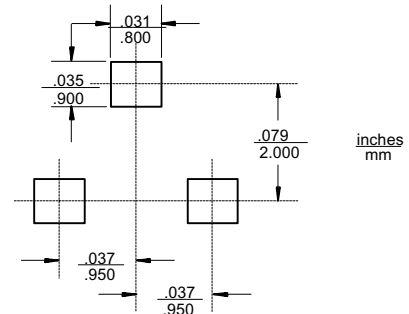
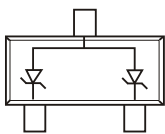
6.1Volts ESD Protection Device

SOT-23



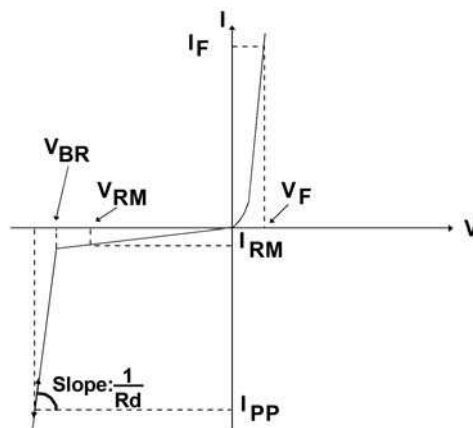
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.110	.120	2.80	3.04	
B	.083	.104	2.10	2.64	
C	.047	.055	1.20	1.40	
D	.035	.041	.89	1.03	
E	.070	.081	1.78	2.05	
F	.018	.024	.45	.60	
G	.0005	.0039	.013	.100	
H	.035	.044	.89	1.12	
J	.003	.007	.085	.180	
K	.015	.020	.37	.51	

Pin Configuration-Top View



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
αT	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	μA
Capacitance	0V bias	C	-	140	-	pF
Forward voltage drop	$I_F=200\text{mA}$	V_F	-	-	1.25	V

ESDA6V1L

TYPICAL CHARACTERISTICS

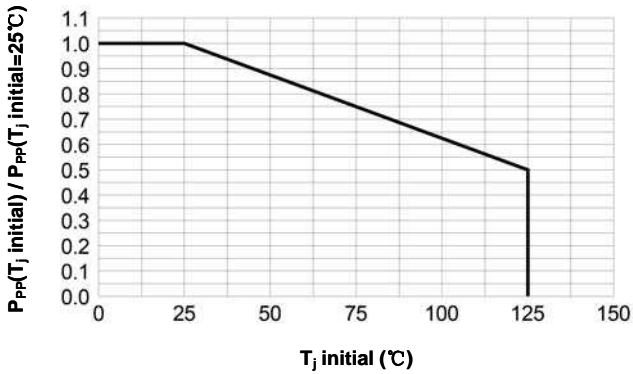


Fig.1: Peak power dissipation vs. initial junction temperature

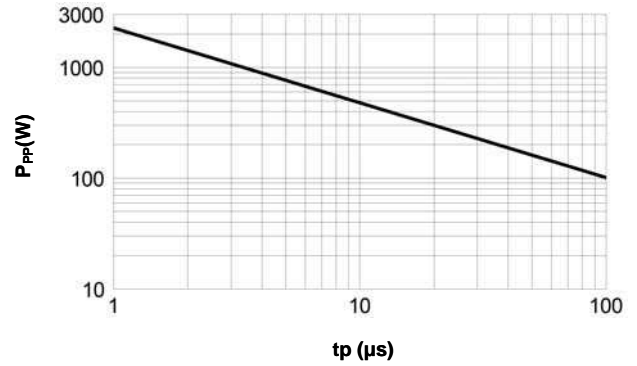


Fig.2: Peak pulse power vs. exponential pulse duration (T_j initial = 25°C)

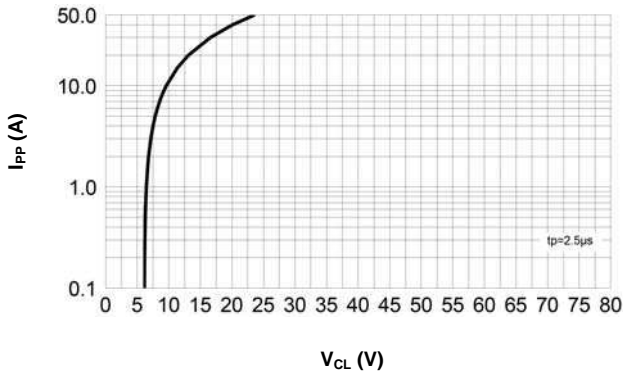


Fig.3: Clamping voltage vs. peak pulse current (T_j initial = 25°C, rectangular waveform tp = 2.5μs)

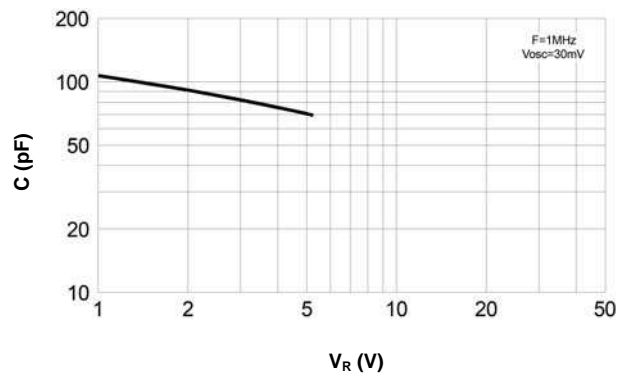


Fig.4: Capacitance vs. reverse applied voltage (typical values)

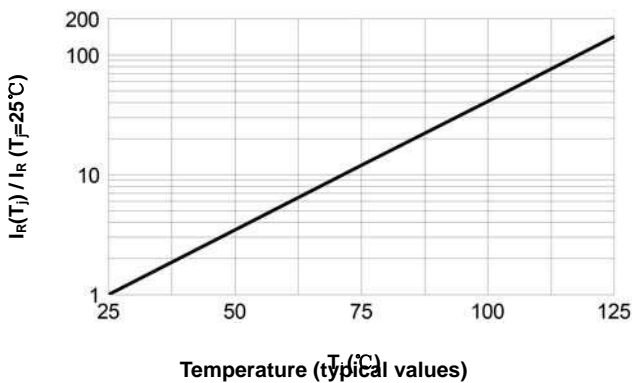


Fig.5: Relative variation of leakage current vs. junction

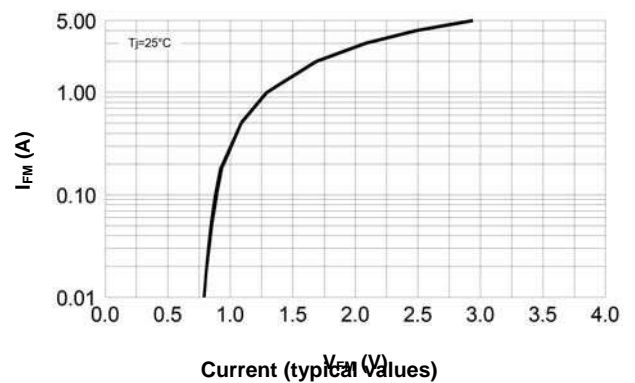


Fig.6: Peak forward voltage drop vs. peak forward



Micro Commercial Components

Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

IMPORTANT NOTICE

Micro Commercial Components Corp. reserves the right to make changes without further notice to any product herein to make corrections, modifications , enhancements , improvements , or other changes . Micro Commercial Components Corp . does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights ,nor the rights of others . The user of products in such applications shall assume all risks of such use and will agree to hold Micro Commercial Components Corp . and all the companies whose products are represented on our website, harmless against all damages.

LIFE SUPPORT

MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.

CUSTOMER AWARENESS

Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources. MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.