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ESDA6V1L

6.1Volts ESD Protection Device

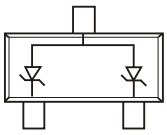
Features

- Dual Transil Array For ESD Protection
- 2 Unidirectional Transil Functions
- Low leakageCurrent: I_{Rmax}<20 uA at V_{WM}
- 300W peak pulse power (8/20 us)
  Epoxy meets UL 94 V-0 flammability rating
  Moisture Sensitivity Level 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



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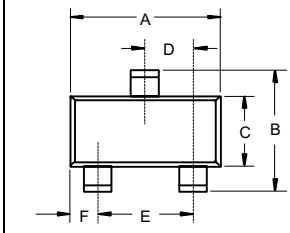
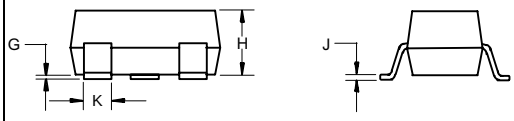
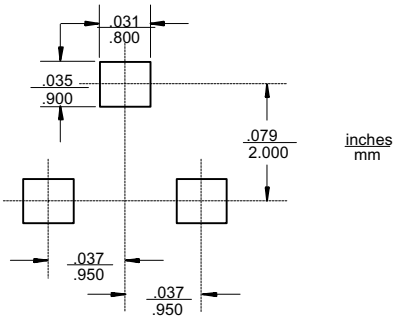




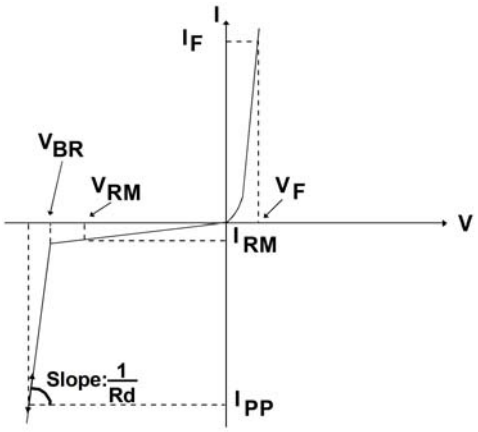
DIM	INCHES MIN	INCHES MAX	MM MIN	MM MAX	NOTE
A	.110	.120	2.80	3.04	
B	.083	.104	2.10	2.64	
C	.047	.055	1.20	1.40	
D	.035	.041	.89	1.03	
E	.070	.081	1.78	2.05	
F	.018	.024	.45	.60	
G	.0005	.0039	.013	.100	
H	.035	.044	.89	1.12	
J	.003	.007	.085	.180	
K	.015	.020	.37	.51	



ESDA6V1L

ELECTRICAL CHARACTERISTICS (T_A = 25°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=1.0mA	V_{BR}	6.1	6.65	7.2	V
Leakage current	V_{WM}=5.25V	I_R	-	-	20	μA
Capacitance	0V bias	C	-	140	-	pF
Forward voltage drop	I_F=200mA	V_F	-	-	1.25	V

ESDA6V1L

TYPICAL CHARACTERISTICS

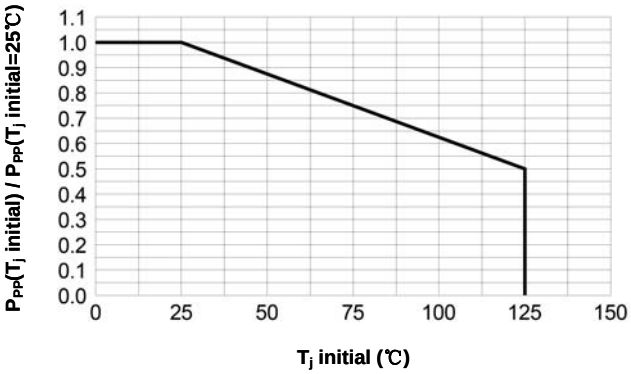


Fig.1: Peak power dissipation vs. initial junction temperature

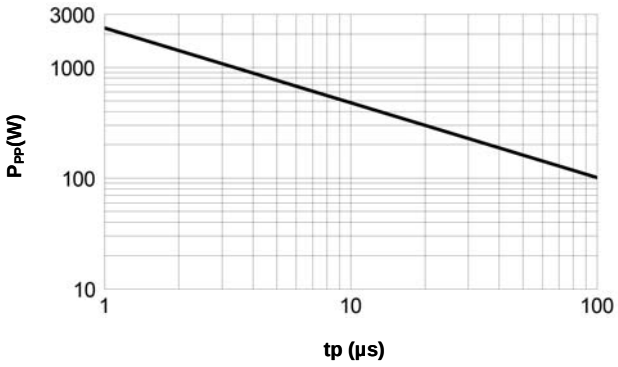


Fig.2: Peak pulse power vs. exponential pulse duration (T_j initial = 25℃)

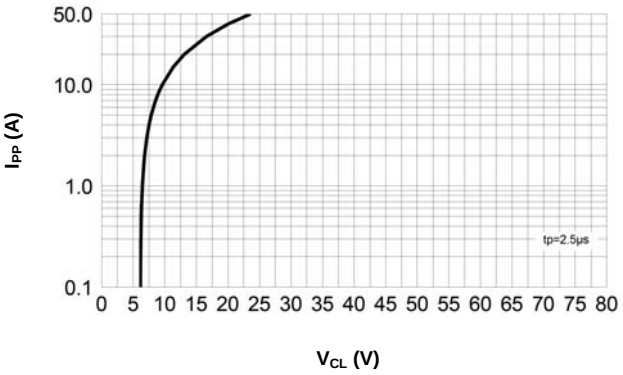


Fig.3: Clamping voltage vs. peak pulse current (Tj initial = 25℃, rectangular waveform tp = 2.5µs)

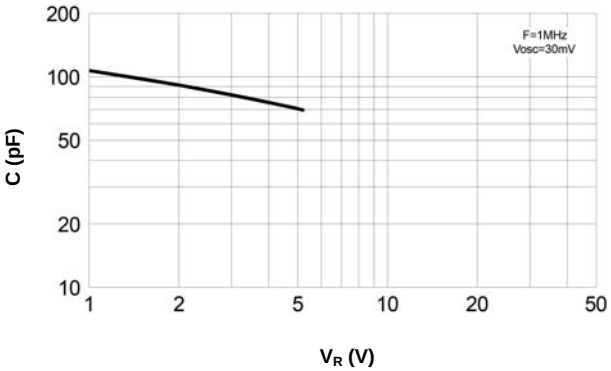
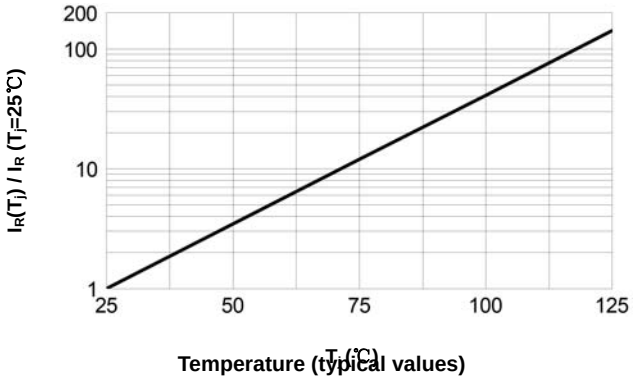
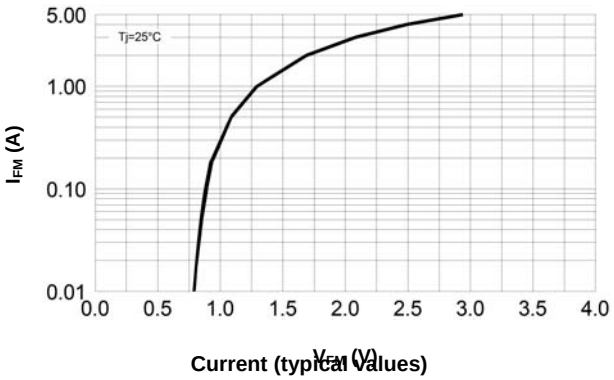


Fig.4: Capacitance vs. reverse applied voltage (typical values)



Temperature (typical values)

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



Current (typical values)

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