

Features

- Working voltage: 5V
- Low clamping voltage
- Protects five I/O lines
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
Air discharge: $\pm 25\text{kV}$
Contact discharge: $\pm 20\text{kV}$
 - IEC61000-4-4 (EFT) 40A (5/50ns)
- RoHS Compliant

Mechanical Characteristics

- Package: SOT-363 (2.0X2.1X0.35mm)
- Lead Finish: Matte Tin
- Case Material: "Green" Molding Compound.
- UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 3 per J-STD-020



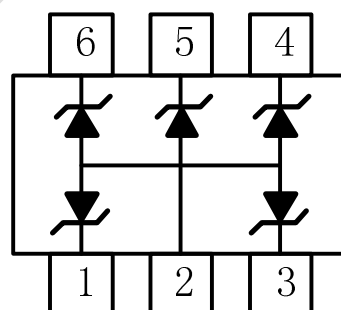
Applications

- Portable Instrumentation
- Microprocessor Based Equipmenmt
- Cell Phone Handsets and Accessories
- Personal Digital Assistants (PDAs) and Pagers

Ordering Information

Part Number	Qty per Reel	Reel Size
ESDA6V1-5W6-TP	3000	7"

Dimensions and Pin Configuration



Pin Configuration

Absolute Maximum Ratings ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μs)	Ppk	100	W
ESD per IEC 61000-4-2 (Air)	VESD	± 25	kV
ESD per IEC 61000-4-2 (Contact)		± 20	
Operating Temperature Range	TJ	-55 to +125	$^{\circ}\text{C}$
Storage Temperature Range	Tstg	-55 to +150	$^{\circ}\text{C}$

Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	VRWM			5	V	
Breakdown Voltage	VBR	6			V	IT = 1mA
Reverse Leakage Current	IR			0.1	μA	VRWM = 5V
Forward Voltage	VF			1.2	V	IF = 15mA
Clamping Voltage	VC			10	V	I _{PP} 1A=(8 x 20us pulse)
Junction Capacitance	CJ		30		pF	VR = 0V, f = 1MHz

Note 1: I/O pins are Pin 1, 3, 4, 5 and 6

PROTECTION PRODUCTS
 Typical characteristics

Fig1. 8/20 μ s Pulse Waveform

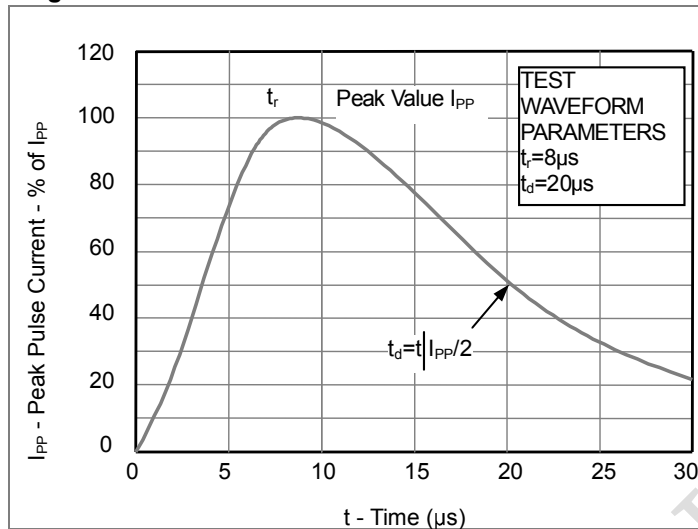


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

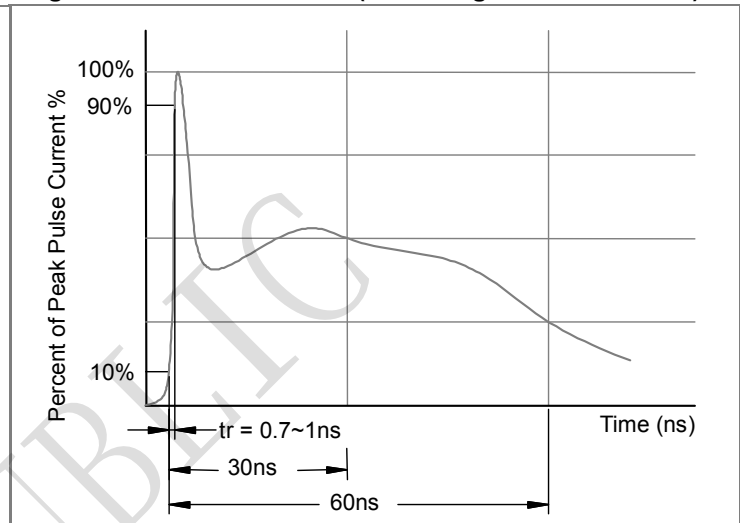
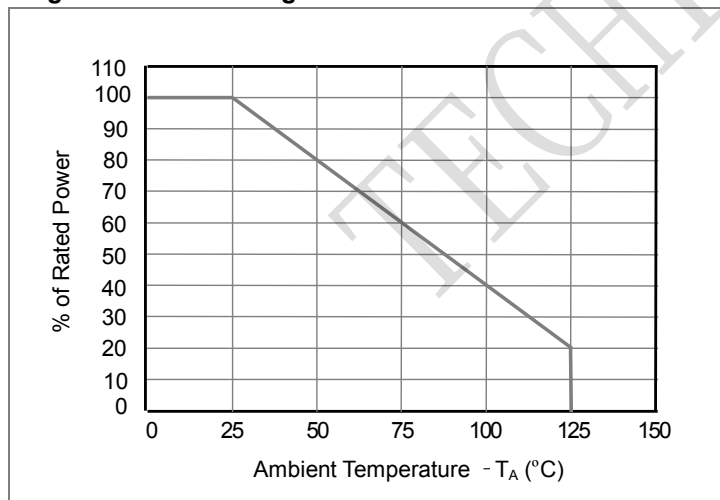
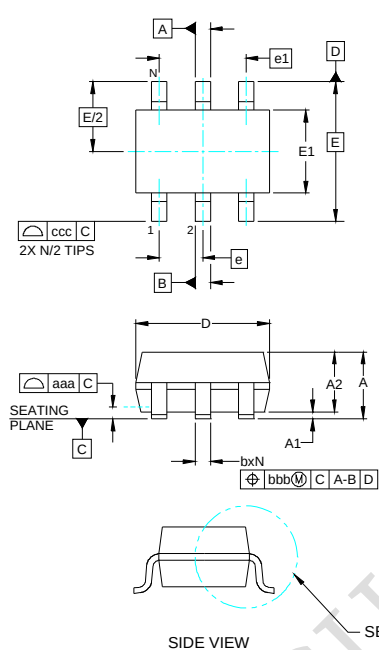


Fig3. Power Derating Curve

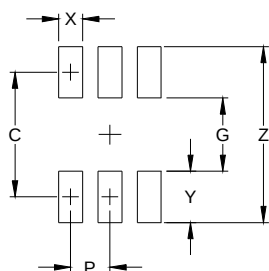


Outline Drawing - SOT-363(2.0X2.1)



DIM	INCHES			MILLIMETERS		
	MIN	NOM	MAX	MIN	NOM	MAX
A	-	-	.043	-	-	1.10
A1	.000	-	.004	0.00	-	0.10
A2	.028	.035	.039	0.70	0.90	1.00
b	.006	-	.012	0.15	-	0.30
c	.003	-	.009	0.08	-	0.22
D	.071	.079	.087	1.80	2.00	2.20
E	.045	.049	.053	1.15	1.25	1.35
E1	.083 BSC	-	-	2.10 BSC	-	-
e	.026 BSC	-	-	0.65 BSC	-	-
e1	.051	-	-	1.30 BSC	-	-
L	.010	.014	.018	0.26	0.36	0.46
L1	(.017)	-	-	(.42)	-	-
N	6	-	-	6	-	-
θ_1	0°	-	8°	0°	-	8°
aaa	.004	-	-	0.10	-	-
bbb	.004	-	-	0.10	-	-
ccc	.012	-	-	0.30	-	-

Land Pattern - SOT-363



DIM	DIMENSIONS	
	INCHES	MILLIMETERS
C	(.073)	(1.85)
G	.039	1.00
P	.026	0.65
X	.016	0.40
Y	.033	0.85
Z	.106	2.70