



DESCRIPTION

The ESDA6V8AV6 is available in SOT-563 Package

APPLICATION

- USB 2.0 interface
- 10/100 Ethernet
- Personal digital assistants (PDA's)
- Notebooks, Desktops and Servers
- Portable instrumentation
- Digital Cameras

MECHANICAL CHARACTERISTICS

- Package: SOT-563
- Lead Finish: Matte Tin
- Case Material: "Green" Molding Compound.
- UL Flammability Classification Rating 94V-0

Moisture Sensitivity: Level 3 per J-STD-020

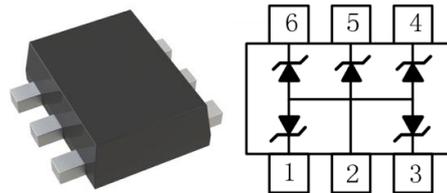
ORDERING INFORMATION

Package Type	Part Number
SOT-563	ESDA6V8AV6
Note	SPQ: 3,000pcs/Reel
AiT provides all RoHS Compliant Products	

FEATURE

- Ultra low leakage <1μA
- Low operating voltage:5V
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
Air discharge: ±20kV,
Contact discharge: ±18kV
 - IEC61000-4-5 (Lightning) 4A (8/20μs)

PIN DESCRIPTION



Pin #	Description
1	Cathode
2	Anode
3	Cathode
4	Cathode
5	Cathode
6	Cathode

ABSOLUTE MAXIMUM RATINGS T_A = 25°C, unless otherwise noted.

P _{pk} , Peak Pulse Power (8/20μs)	80W
V _{ESD} , ESD per IEC61000-4-2	(Air) ±20kV (Contact) ±18kV
T _J , Junction temperature	-55°C ~ +150°C
T _{stg} , Storage Temperature	-55°C ~ +150°C

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.



ELECTRICAL CHARACTERISTICS

T_A = 25°C, unless otherwise noted.

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse Working Voltage	V _{RWM}		-	-	5	V
Breakdown Voltage	V _{br}	I _T = 1mA	6	-	-	V
Reverse leakage current	I _R	V _{RWM} = 5 V	-	-	0.1	μA
Forward Voltage	V _F	I _F = 10mA	-	-	1.2	V
Clamping Voltage	V _C	I _{PP} = 4A (8x20μs pulse)	-	-	14	V
Junction Capacitance	C _J	V _R = 0V, f = 1 MHz I _o to GND	-	-	10	pF

ELECTRICAL CHARACTERISTICS CURVES

Fig 1. 8/20μs Pulse Waveform

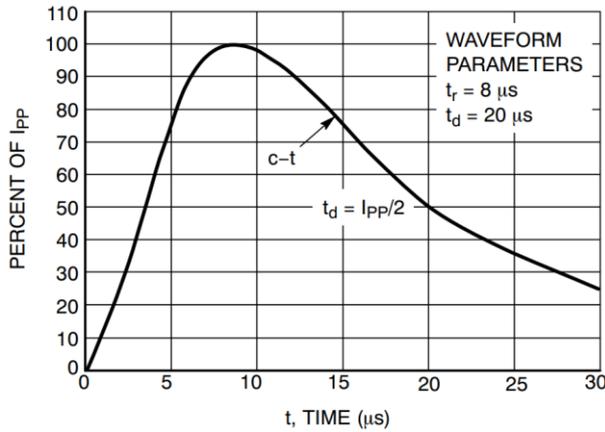


Fig 2. ESD Pulse Waveform according to IEC 61000-4-2

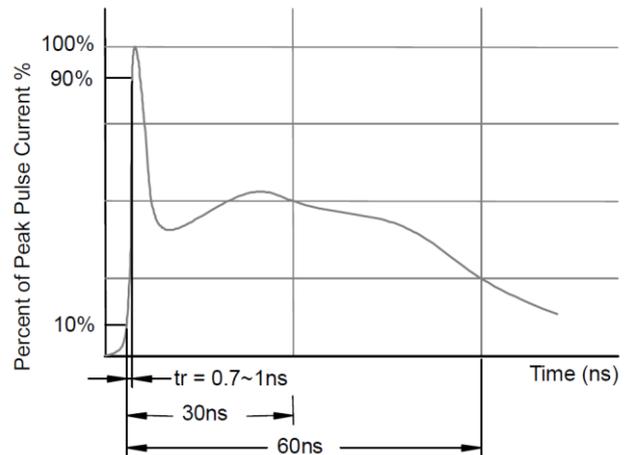
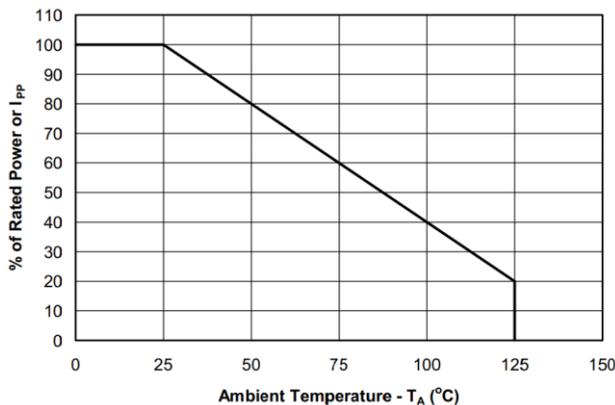


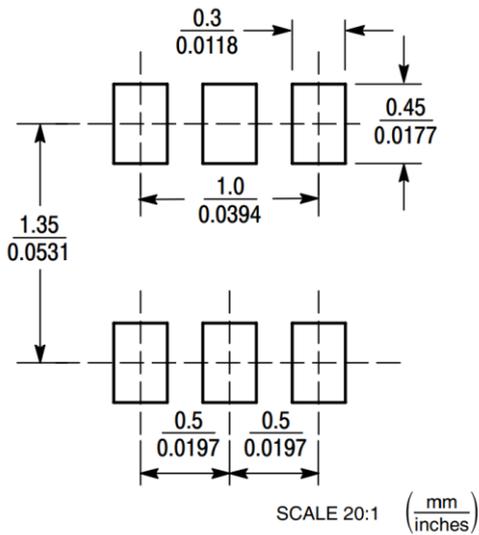
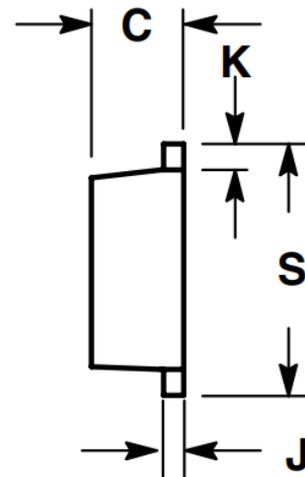
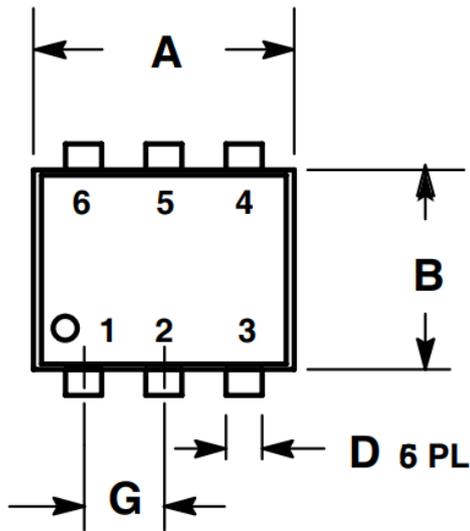
Fig 3. Power Derating Curve





PACKAGE INFORMATION

Dimension in SOT-563 Package (Unit: mm)



SYMBOL	MIN	MAX
A	1.50	1.70
B	1.10	1.30
C	0.50	0.60
D	0.17	0.27
G	0.50 BSC	
J	0.08	0.18
K	0.10	0.30
S	1.50	1.7

Soldering Footprint



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