

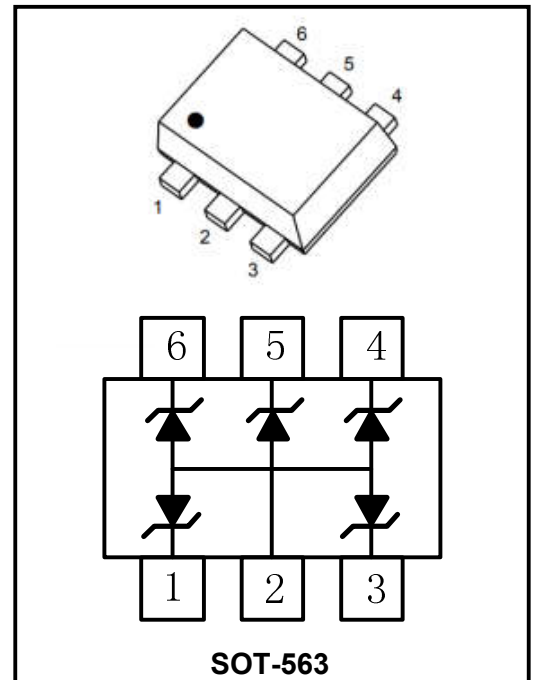
**Low Capacitance 5-Line TVS Diode**

**FEATURES**

- ◆ Ultra low leakage: nA level
- ◆ 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 (8/20 μs)
- ◆ RoHS Compliant
- ◆ Lead Finish: NiPdAu

**APPLICATIONS**

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



<b>Marking Code</b>	
ESDA6V8AV6	.E2

**Absolute Maximum Ratings (TA=25°C unless otherwise specified)**

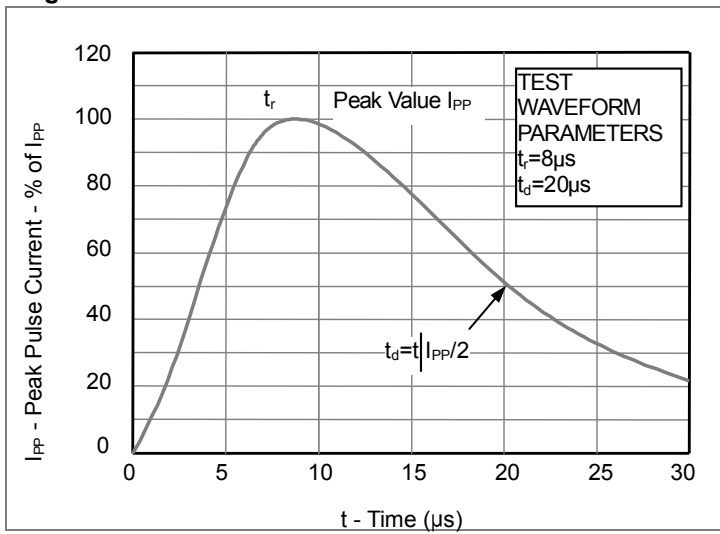
Parameter	Symbol	Rating	Unit
ESD per IEC 61000-4-2 (Air)	$V_{ESD}$	±20	<b>KV</b>
ESD per IEC 61000-4-2 (Contact)		±18	
Peak Pulse Power (8/20μs)	$P_{PK}$	80	<b>W</b>
Operating Temperature Range	$T_j$	-55 ~ +150	<b>°C</b>
Storage Temperature Range	$T_{stg}$	-55 ~ +150	<b>°C</b>

**Electrical Characteristics (Ta=25°C unless otherwise specified)**

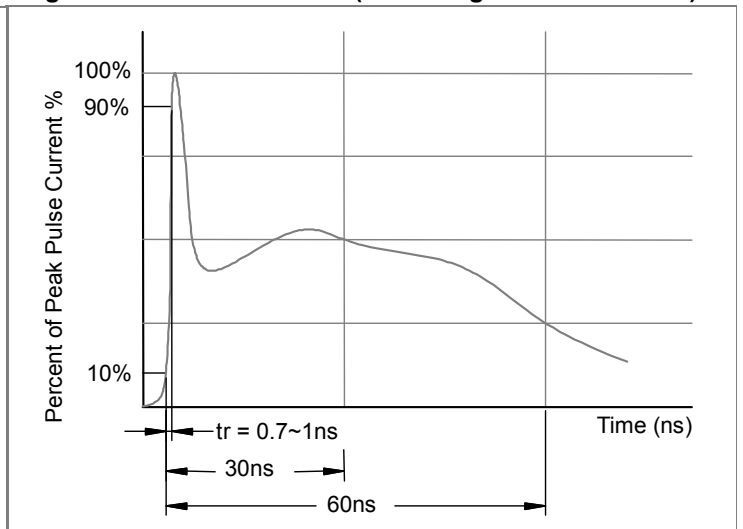
Parameter	Symbol	Test Conditions	Criterion			Unit
			Min	Typ	Max	
Reverse Working Voltage	$V_{RWM}$		-	-	5	<b>V</b>
Breakdown voltage	$V_{BR}$	$I_T = 1mA$	6	-	-	<b>V</b>
Reverse leakage current	$I_R$	$V_{RWM} = 5V$	-	-	0.1	<b>uA</b>
Forward voltage	$V_F$	$I_F = 10mA$	-	-	1.2	<b>V</b>
Clamping voltage	$V_C$	$I_{PP} = 4A$ (8 x 20us pulse)	-	-	14	<b>V</b>
Junction capacitance	$C_J$	$V_R = 0V, f = 1 MHz$ IO to Gnd	-	-	10	<b>pF</b>

Typical Performance Characteristics ( $T_A=25^{\circ}\text{C}$  unless otherwise Specified)

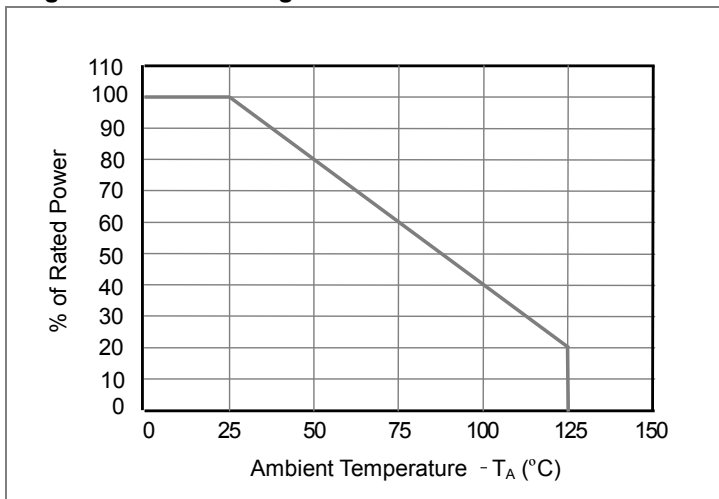
**Fig1. 8/20 $\mu\text{s}$  Pulse Waveform**



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



**Fig3. Power Derating Curve**



**Ordering information**

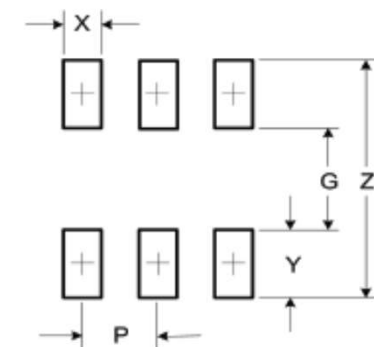
Package	Packing Description	Packing Quantity
SOT-563	Tape/Reel,7"reel	3000PCS/Reel 120000PCS/Carton

**Package Dimensions**

**SOT-563**

Dim.	Millimeter(mm)		Inches	
	Min.	Max.	Min.	Max.
A	0.525	0.600	0.021	0.024
A1	-	0.050	-	0.002
e	0.450	0.550	0.018	0.022
c	0.090	0.160	0.004	0.006
D	1.500	1.700	0.059	0.067
b	0.170	0.270	0.007	0.011
E1	1.100	1.300	0.043	0.051
E	1.500	1.700	0.059	0.067
L	0.100	0.300	0.004	0.012
$\theta$	7°		7°	

**The recommended mounting pad size**



Dim.	Millimeter(mm)
	TYP
Z	1.91
G	0.89
P	TYP0.51
X	0.30
Y	0.51

## Disclaimer

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