

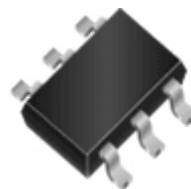
4-Line Transient Voltage Suppressors

Descriptions

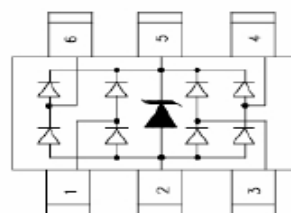
The ESDA6V8UE is a transient voltage suppressors (TVS) which provide a very high level protection for sensitive electronic components that may be subjected to electrostatic discharge (ESD). It is particularly well-suited for cellular phones, PMP, MID, PDA, digital cameras and other electronic equipments.

The ESDA6V8UE is safely dissipating ESD strikes to meet the ESD immunity testing of IEC61000-4-2 level 4 ($\pm 15\text{kV}$ air, $\pm 8\text{kV}$ contact). Using the MILSTD-883 (Method 3015) specification of Human Body Model (HBM), the device provides protection to greater than $\pm 10\text{kV}$.

The ESDA6V8UE is available in a SOT-23-6L package with Pb-free.



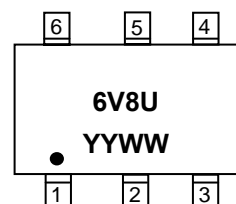
SOT-23-6L



Pin configuration (Top view)

Features

- Working voltage : 5V
- Peak power (tp=8/20us) : 75W
- Peak current (tp=8/20us) : 5A (Vdd-Gnd)
: 4A (I/O-Gnd)
- Transient protection
 - IEC61000-4-2 : $\pm 15\text{kV}$ air
 - : $\pm 8\text{kV}$ contact
 - HBM : $\pm 10\text{kV}$
- Low clamping voltage
- Low leakage current
- Small package



6V8U = Device Code
YY = Year
WW = Week
Marking

Applications

- Cell phone
- PMP
- MID
- PDA
- Digital camera
- Other electronics equipments

Order information

Device	Package	Shipping
ESDA6V8UE-6/TR	SOT-23-6L	3000/Tape&Reel

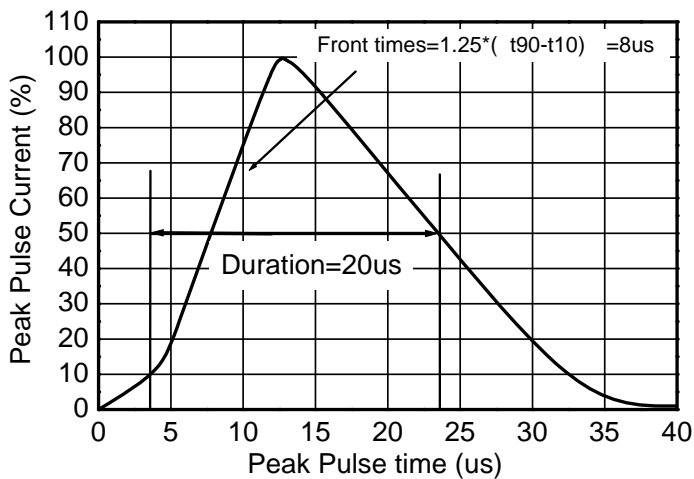
Absolute maximum ratings

ESDA6V8UE

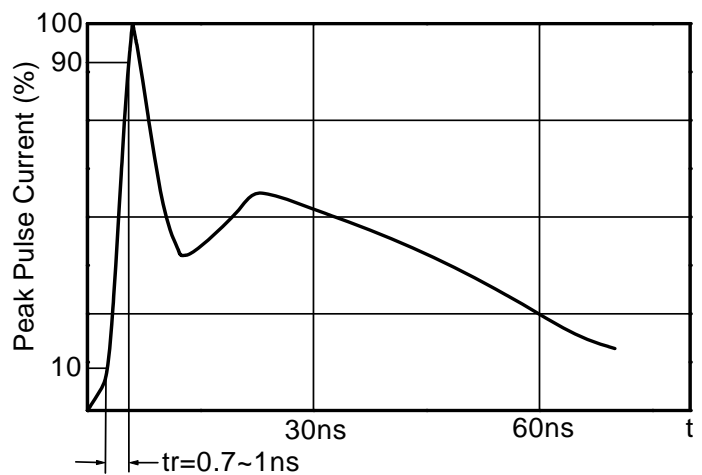
Parameter	Symbol	Rating	Unit
Peak pulse power (tp=8/20us)	Ppk	75	W
Peak pulse current (tp=8/20us)	Ipp(Vdd-Gnd)	5	A
	Ipp(I/O-Gnd)	4	A
ESD voltage IEC61000-4-2 air	V _{ESD}	±15	kV
ESD voltage IEC61000-4-2 contact		±8	
Operation junction temperature	T _J	150	°C
Lead temperature	T _L	260	°C
Storage temperature	T _{sg}	-55~150	°C

Electronics characteristics (Ta=25°C, unless otherwise noted)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Reveres maximum working voltage	V _{RWM}				5.0	V
Reveres leakage current	I _R	V _{RWM} =5V			1.0	uA
Reveres breakdown voltage	V _{BR}	I _T =1mA, I/O to GND	6.5	8.0	8.8	V
		I _T =1mA, Vdd to GND	5.8	7.3	8.1	V
Forward voltage	V _F	I _F =10mA	0.5	0.7	1.0	V
Clamping voltage	V _C	Ipp=1A tp=8/20us			12	V
		Ipp=4A tp=8/20us			20	V
Junction capacitance	C _J	I/O to GND		0.7	0.8	pF
		I/O to I/O		0.35		pF

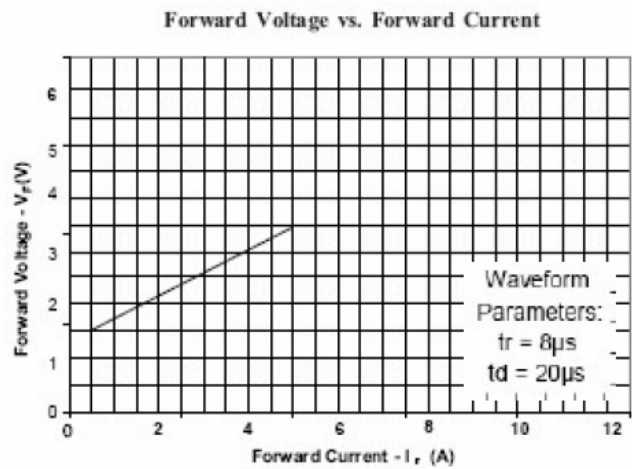
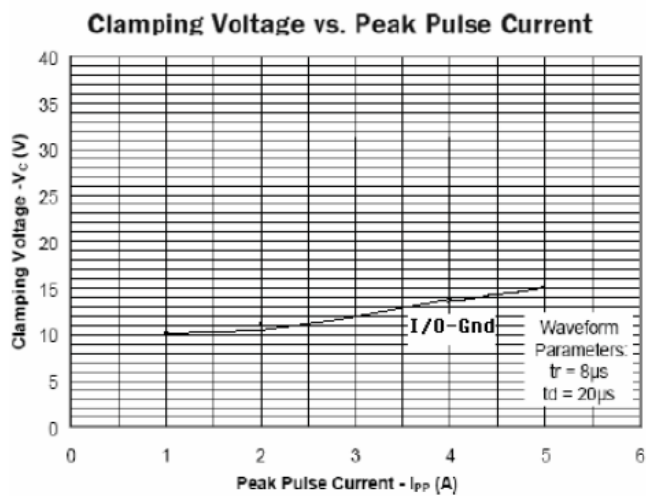
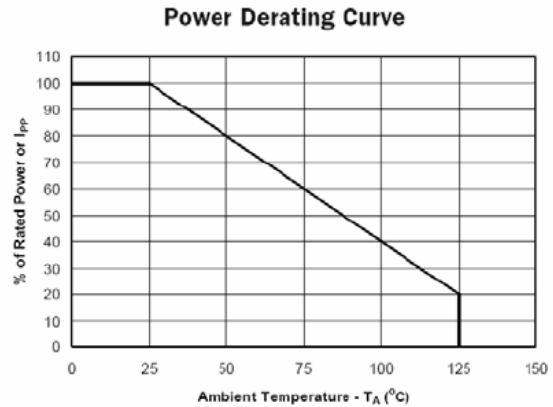
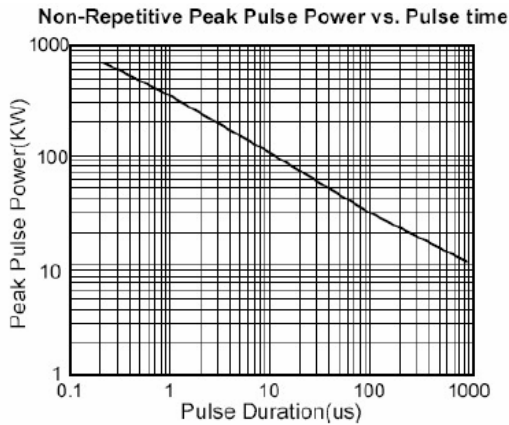


8/20us waveform



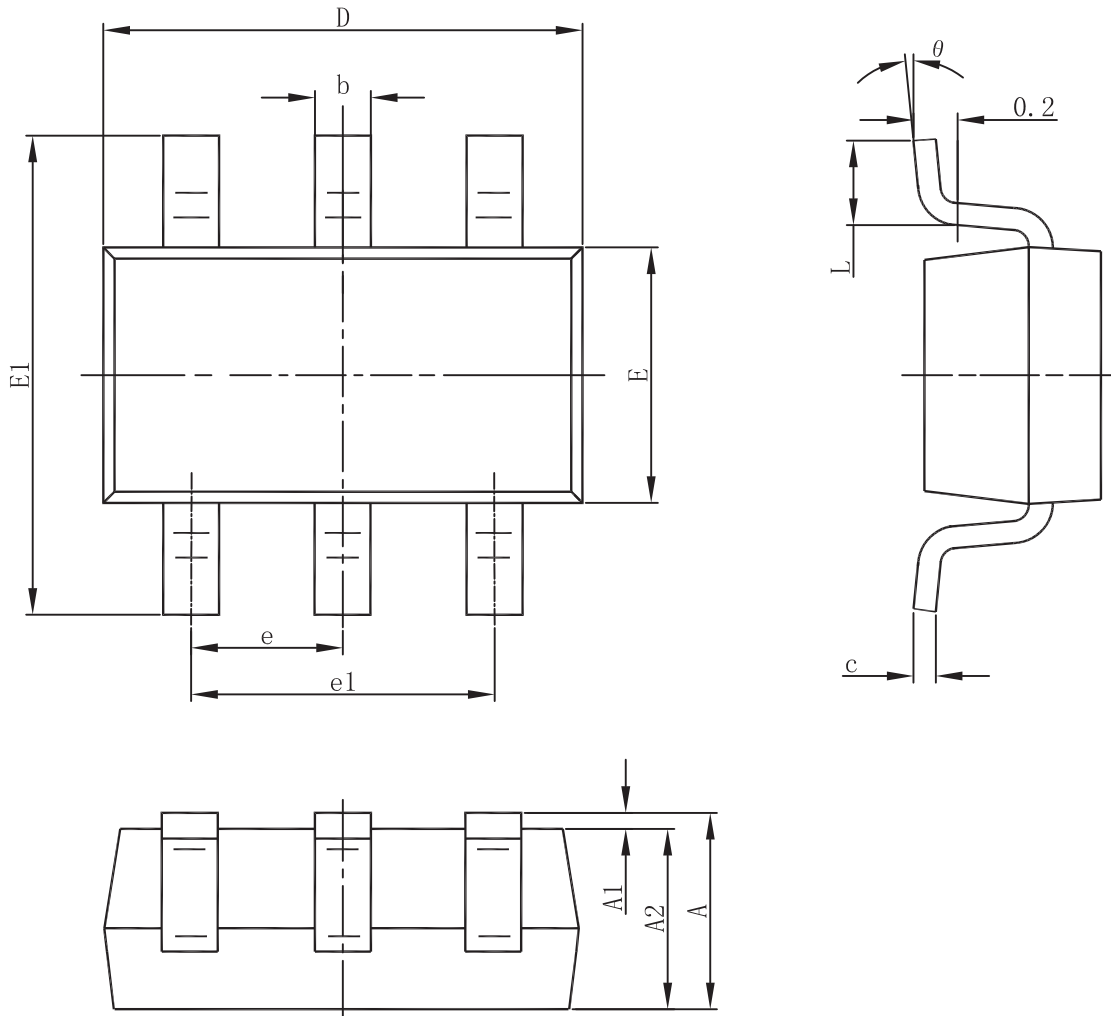
IEC61000-4-2 waveform

Typical characteristics (Ta=25°C, unless otherwise noted)



Package outline dimensions

SOT-23-6L



Symbol	Dimensions In Millimeters	
	Min.	Max.
A	1.050	1.250
A1	0.000	0.100
A2	1.050	1.150
b	0.300	0.500
c	0.100	0.200
D	2.820	3.020
E	1.500	1.700
E1	2.650	2.950
e	0.950(Basic)	
e1	1.800	2.000
L	0.300	0.600
θ	0°	8°