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TPESD12B4X6

6-Pin Bi-Directional Quad TVS Array

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Features

- 75W peak pulse power(8/20μs)
- Ultra low leakage：nA level
- Operating voltage：12V
- Low clamping voltage
- Complies with following standards:
  - – IEC 61000-4-2 (ESD) immunity test
    - Air discharge: ±30kV
    - Contact discharge: ±30kV
  - – IEC61000-4-4 (EFT) 40A (5/50ns)
  - –IEC61000-4-5 (Lightning) 3A (8/20μs)
- RoHS Compliant

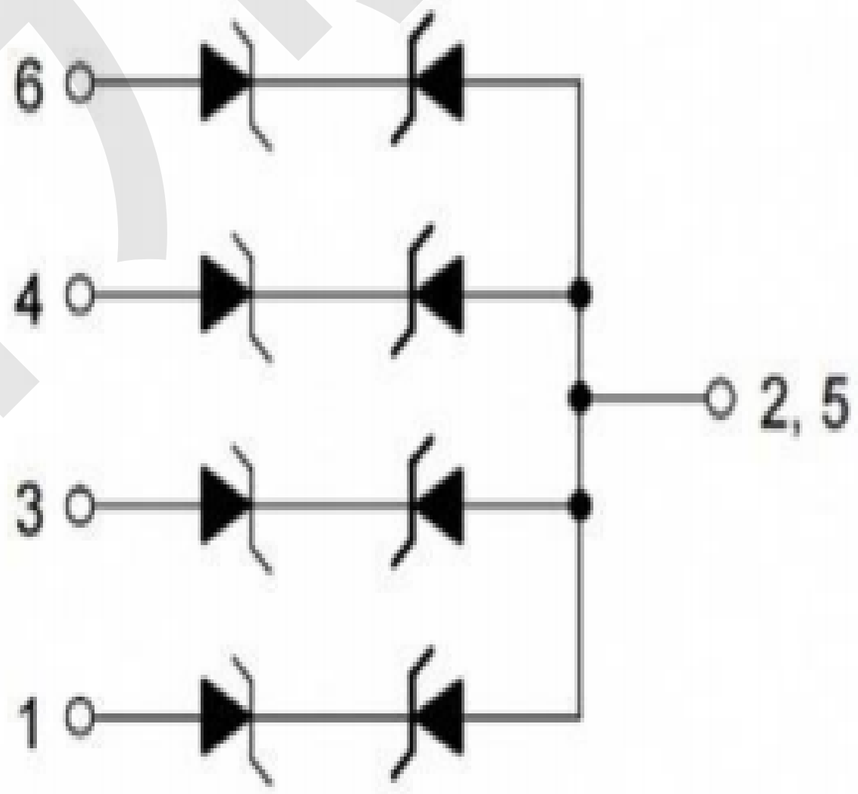
Mechanical Characteristics

- 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
- Shipping Qty :4000pcs/7Inch Tape & Reel

Applications

- GSM Handsets and Accessories
- Other Telephone Sets
- Computers / Printers / SetÿTop Boxes

Dimensions and Pin Configuration



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

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	Ppk	75	W
Peak Pulse Current (8/20μs)	I_{PP}	3	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V_{ESD}	±30 ±30	kV
Operating Temperature Range	T_J	-55 to +125	°C
Storage Temperature Range	Tstg	-55 to +150	°C

Electrical Characteristics (TA=25°C unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	V_{RWM}			12	V	
Breakdown Voltage	V_{BR}	13.3			V	I_T = 1mA
Reverse Leakage Current	I_R			0.1	μA	V_{RWM} = 24V
Forward Voltage	V_F		0.8	1.2	V	I_F = 10mA
Clamping Voltage	V_C			25	V	I_{PP} = 3A (8 x 20μs pulse)
Junction Capacitance	C_J		13	15	pF	VR=0, f=1MHz，Pin line to GND

Typical Performance Characteristics (T_A=25°C unless otherwise Specified)

Fig1. 8/20μs Pulse Waveform

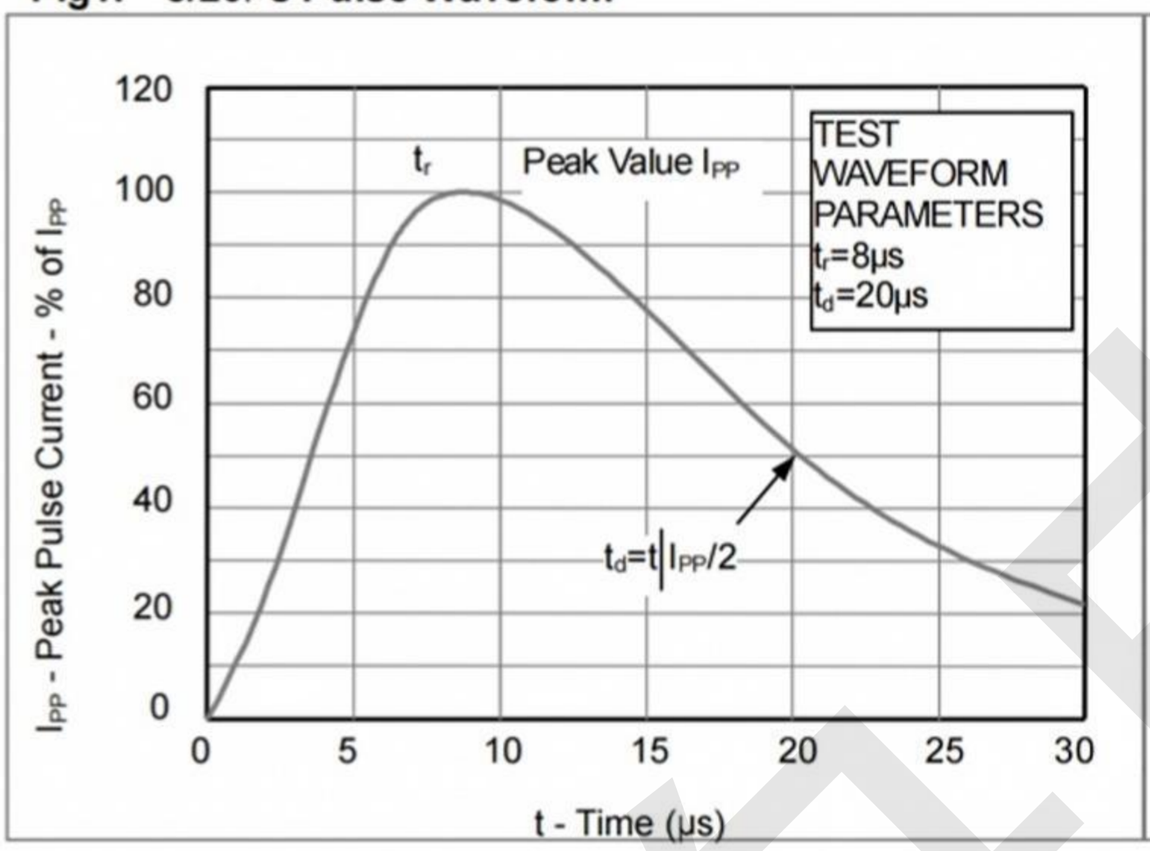


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

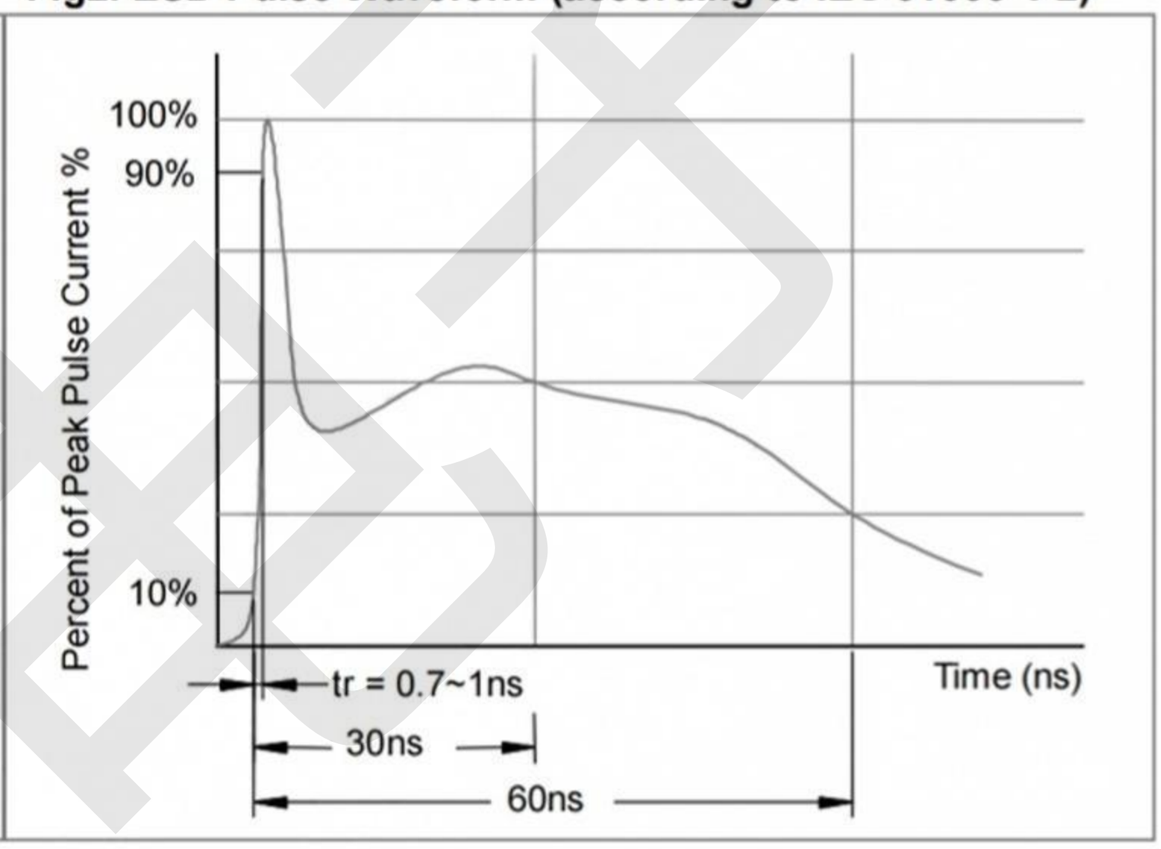
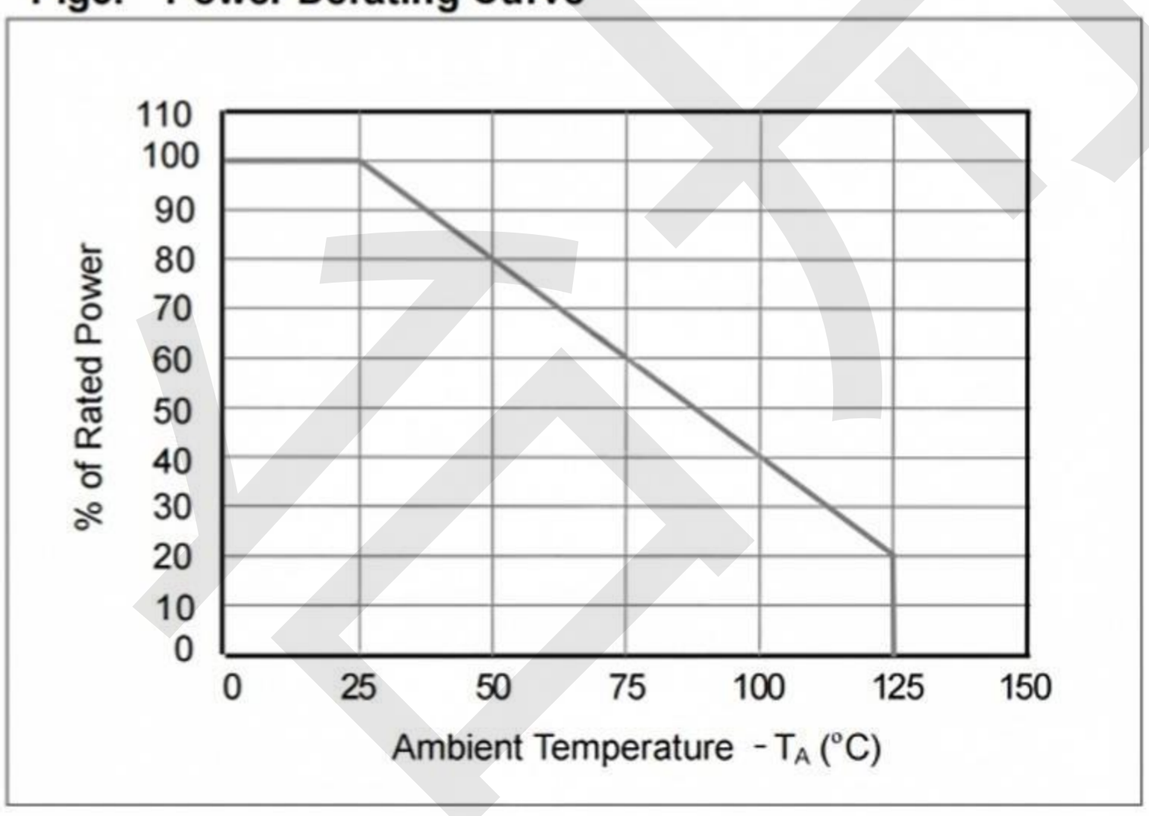
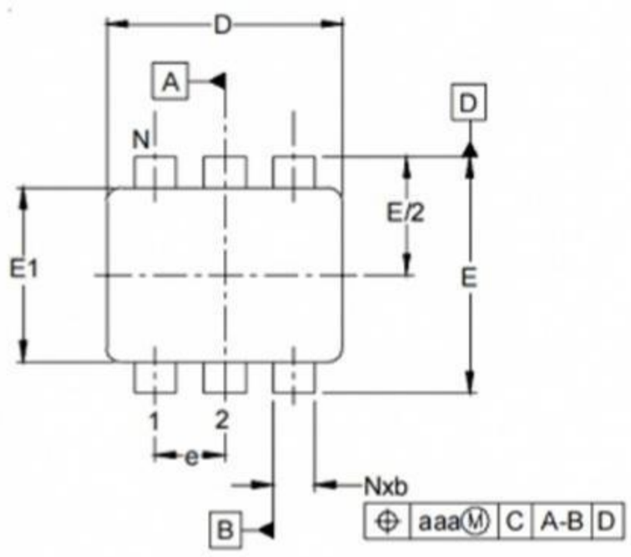
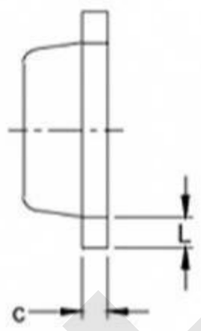


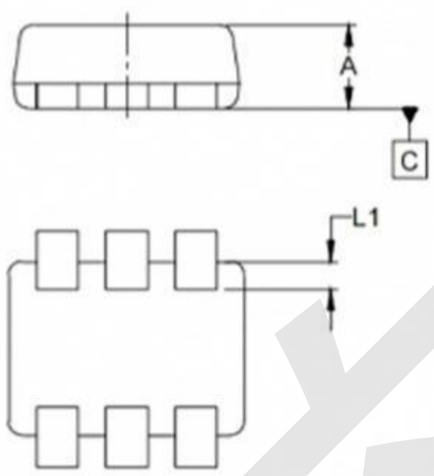
Fig3. Power Derating Curve



Outline Drawing - SOT-563

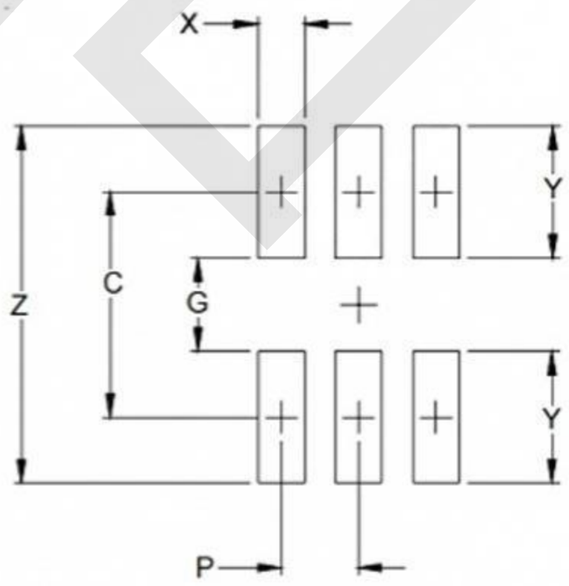






DIMENSIONS						
DIM	INCHES			MILLIMETERS		
	MIN	NOM	MAX	MIN	NOM	MAX
A	.019	-	.024	0.50	-	0.60
b	.005	-	.012	0.15	-	0.30
c	.003	-	.007	0.10	-	0.18
D	.059	.063	.067	1.50	1.60	1.70
E	.061	.063	.067	1.55	1.60	1.70
E1	.043	.047	.049	1.10	1.20	1.25
e	.020 BSC			0.50 BSC		
L	.003	.008	.012	0.10	0.20	0.30
L1	.003	.006	.008	0.10	0.15	0.20
N	6			6		
aaa	.004			0.10		

Land Pattern - SOT-563



DIMENSIONS		
DIM	INCHES	MILLIMETERS
C	(.057)	(1.45)
P	.020	0.50
G	.024	0.60
X	.012	0.30
Y	.033	0.85
Z	.090	2.30