TECH PUBLIC
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TPESDA6V1SC5

4-Line Uni-directional TVS Diode

www.sot23.com.tw

Features

- Ultra low leakage: nA level
- Low operating voltage: 5V
- Low clamping voltage
- 2-pin leadless package
- Complies with following standards:
- – IEC 61000-4-2 (ESD) immunity test
  Air discharge: ±30kV
  Contact discharge: ±30kV
- – IEC61000-4-5 (Lightning)12A (8/20 μs)
- – IEC61000-4-4 (EFT) 40A (5/50ns)
- RoHS Compliant
- Lead Finish: NiPdAu

Mechanical Characteristics

- Package: SOT23-5
- Lead Finish: Matte Tin
- Case Material: "Green" Molding Compound.
- UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 3 per J-STD-020

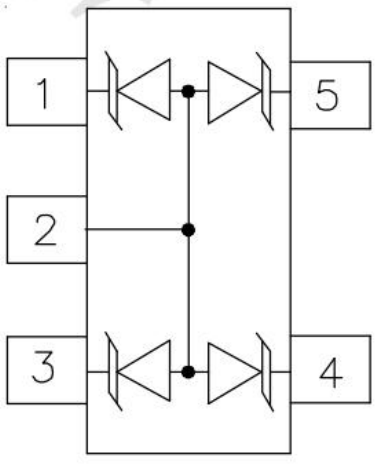
Applications

- Cell phone Handsets and Accessories
- Microprocessor Based Equipment
- Personal Digital Assistants (PDA's)
- Notebooks, Desktops, and Servers
- Portable Instrumentation
- Set Top Box

Ordering Information

Part Number	Qty per Reel	Reel Size
TPESDA6V1SC5	3000	7″

Dimensions and Pin Configuration



Marking:EC61

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

Parameter	Symbol	Value	Unit
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}			5	V	
Breakdown Voltage	V_{BR}	6.1		8.4	V	I_T = 1mA
Reverse Leakage Current	I_R			0.08	uA	V_{RWM} = 5V
Clamping Voltage	Vc			11	V	Ipp=4A(8x 20us pulse)
Clamping Voltage	Vc			15	V	Ipp=12A(8x 20us pulse)
Junction Capacitance	C_J			100	pF	VR = 0V, f = 1MHz IO to GND

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

Fig1. 8/20μs Pulse Waveform

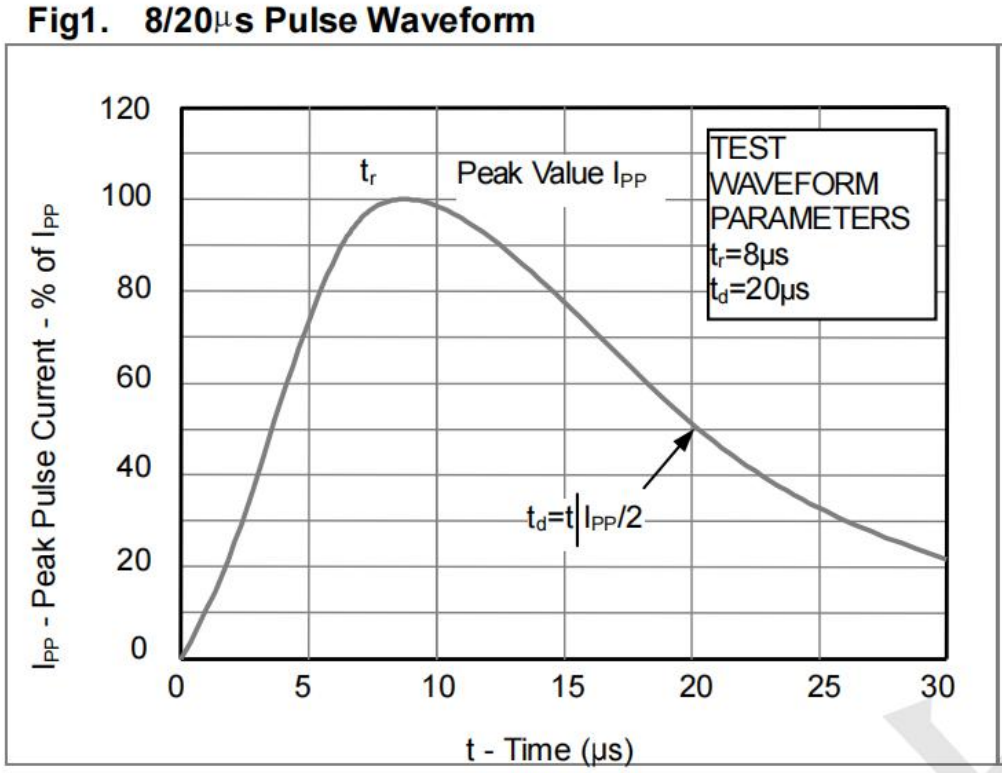


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

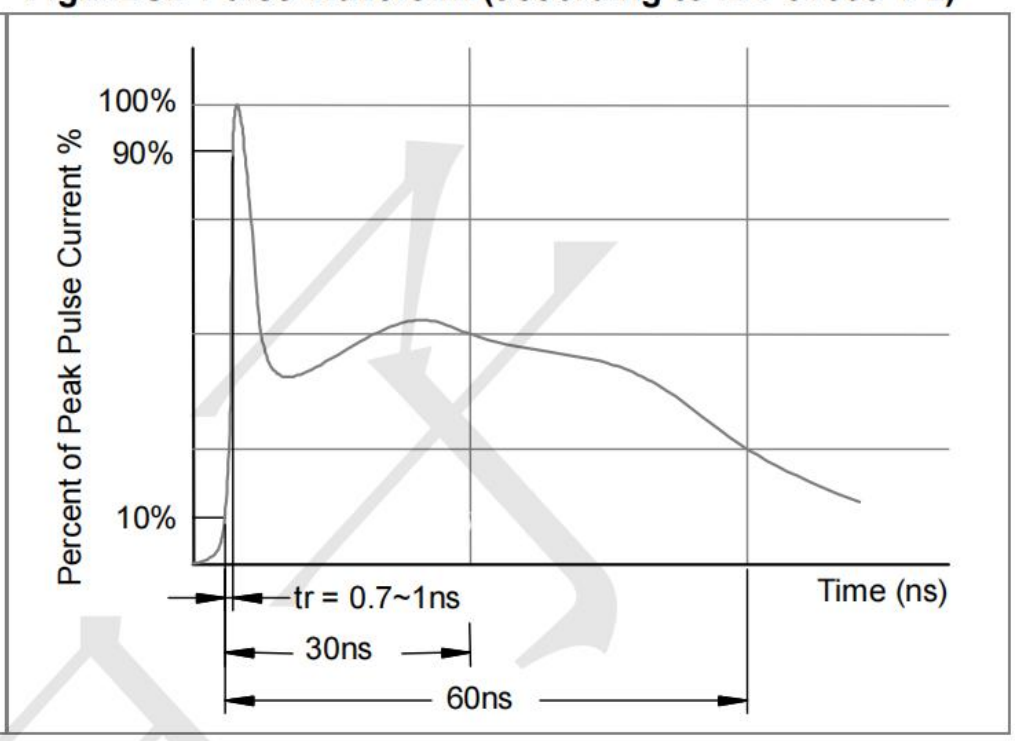
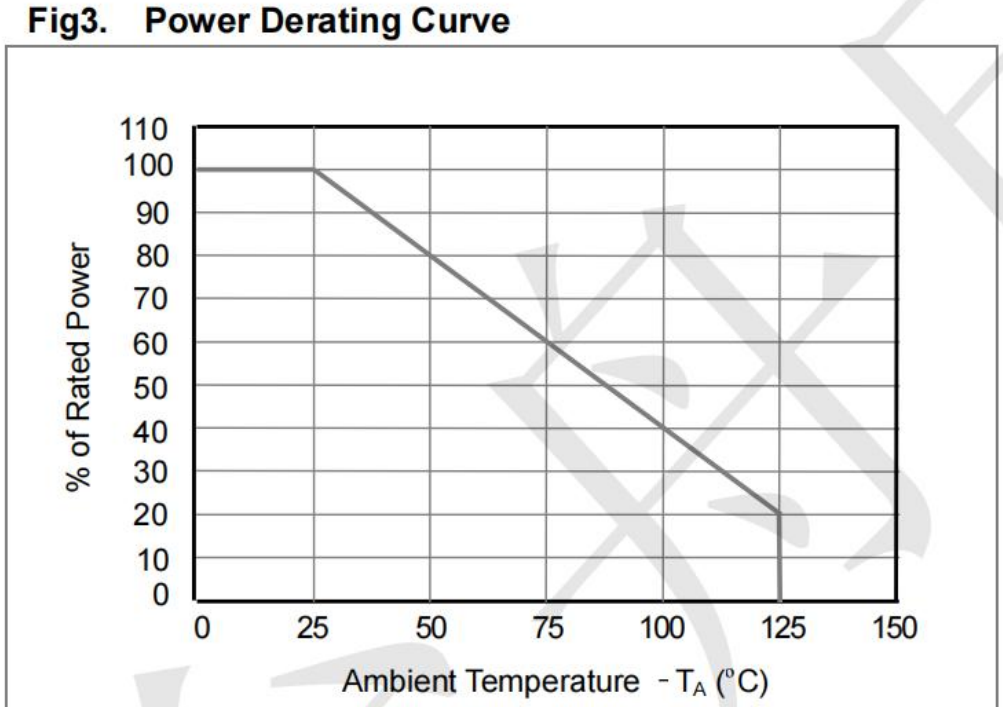
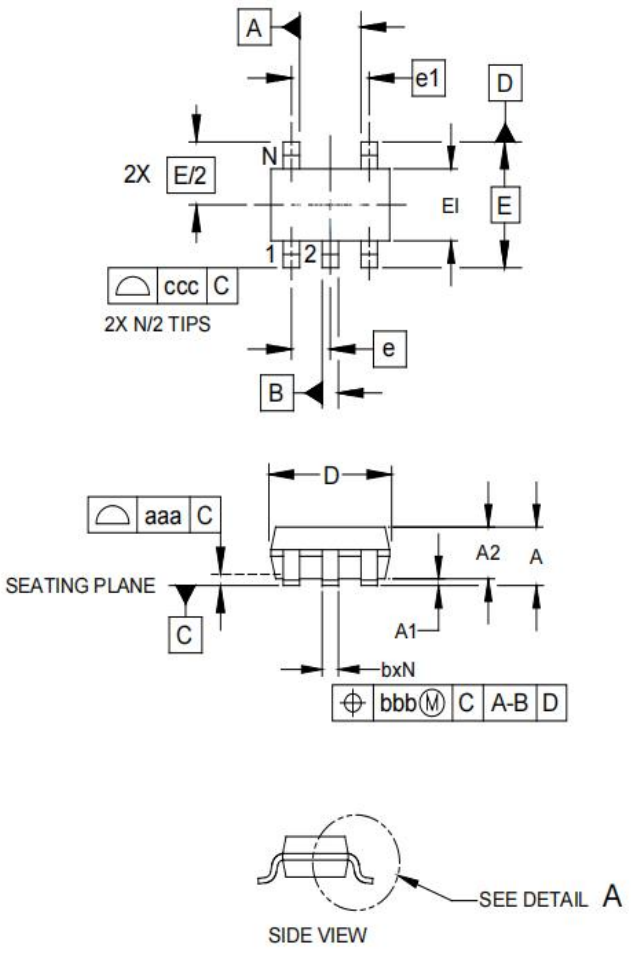


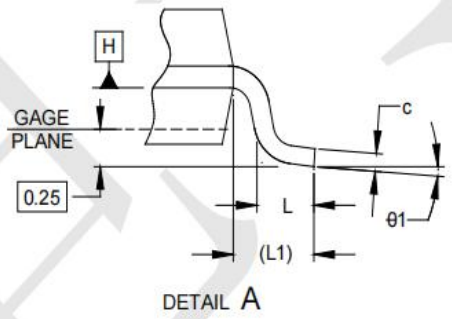
Fig3. Power Derating Curve



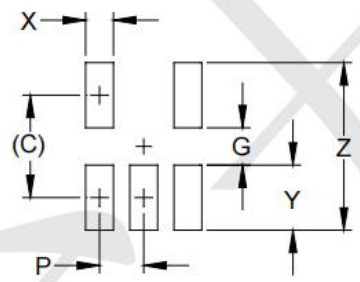
SOT23-5 Package Outline Drawing



DIMENSIONS						
DIM	INCHES			MILLIMETERS		
	MIN	NOM	MAX	MIN	NOM	MAX
A	.035	-	.057	0.90	-	1.45
A1	.000	-	.006	0.00	-	0.15
A2	.035	.045	.051	.90	1.15	1.30
b	.010	-	.020	0.25	-	0.50
c	.003	-	.009	0.08	-	0.22
D	.110	.114	.118	2.80	2.90	3.00
E1	.060	.063	.069	1.50	1.60	1.75
E	.110 BSC			2.80 BSC		
e	.037 BSC			0.95 BSC		
e1	.075 BSC			1.90 BSC		
L	.012	.018	.024	0.30	0.45	0.60
L1	(.024)			(0.60)		
N	5			5		
θ1	0°	-	10°	0°	-	10°
aaa	.004			0.10		
bbb	.008			0.20		
ccc	.008			0.20		



Suggested Land Pattern



DIMENSIONS		
DIM	INCHES	MILLIMETERS
C	(.098)	(2.50)
G	.055	1.40
P	.037	0.95
X	.024	0.60
Y	.043	1.10
Z	.141	3.60

Unikeyic Electronics

Global Electronic Components Distributor

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TECH PUBLIC:

SI3932DV TPDMG6602SVT TPESD5311N TPZVN3320FTA TPGC12C-1 BV15C FDMS7670AS-TP TPAPX809S-31SA BSN20W DMP6350S SN7002W QM3003J-TP TPADM809LAKSZ TPB05A40-323 TPFMMT493 TPS3809L30DBVR-TP TPZXMP3A13FTA DDTA143ZCA TPB1A30-123 TPSPX3819M5-L-3-3 FDC6301N-TP TPADM809SAKSZ TPESD0402G08V TPS7B6950DBVR-TP TPD1213A-02SM TPESD0504S6-A TPWSB5557Z ESD5B5.0ST1G-P IRFR2405TRPBF-TP LTH7