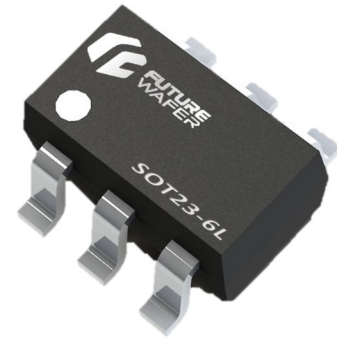


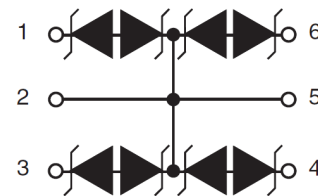
Quad Bi-Directional Transient Suppressor For ESD array

Applications

- Personal Digital Assistance
- Wireless System
- DVI
- High Speed Data Line
- Prints
- Computers



SOT23-6L



Feature

- With TVS Diode
- ESD Protection:Level 4
- Low clamping voltage
- 80 Watts peak pulse power per line(tp=8/20uS)
- Ultra low capacitance:10pf max.(any I/O to GND.)
- Protection 4 lines I/O port

IEC Compatibility

- EN61000-4
- 61000-4-2(ESD):Level 4,Contact:±8kv,Air:±15kv
- 61000-4-4(EFT):40A-5/50ns
- 61000-4-5(Surge):3A,8/20us

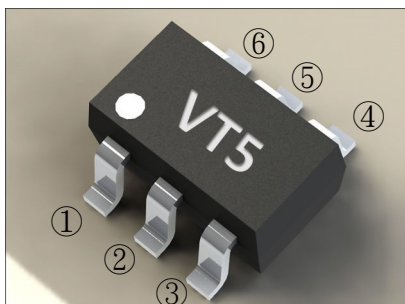
Mechanical Characteristics

- Molded JEDEC SOT23-6L package
- Packing: Tape and Reel
- Flammability rating UL 94V-0
- Halogen Free

Device Characteristics

Maximum Ratings@25 unless otherwise specified

Parameter	Symbol	Value	Units
Peak pulse power (tp=8/20us) see fig 1.	P _{PP}	80	Watts
Operating Temperature	T _J	-55~150	°C
Storage Temperature	T _{STG}	-55~150	°C
Peak Pulse Current (tp=8/20us)	I _{PP}	3	A
Electrostatic Discharge	V _{ESD}	>8(Contact) >15(Air)	KV



Pin	Identification
1,3,4,6	Input lines
2,5	Ground

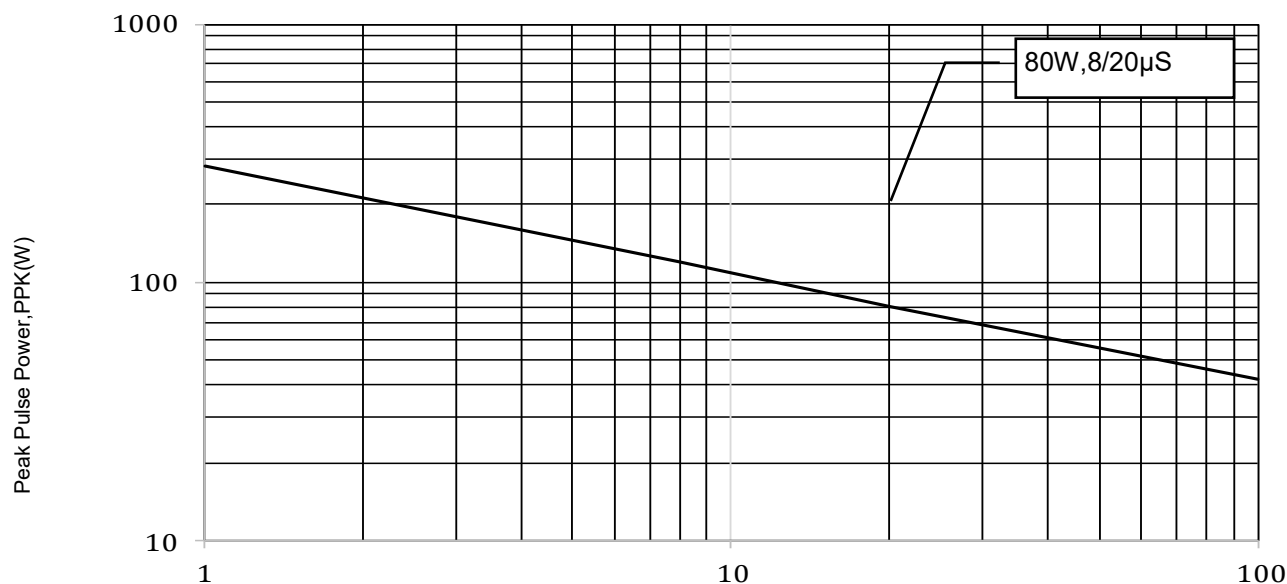
Quad Bi-Directional Transient Suppressor For ESD array

Electrical Characteristics

Parameter	Symbol	Condition	Min.	Typ.	Max.	Units
Reverse Stand-off Voltage	V_{RWM}				5	V
Reverse Breakdown Voltage	V_{BR}	$I_z=1mA$	6.1		8	V
Reverse Leakage Current	I_R	$V_{RWM}=5V$			1	μA
Dynamic resistance	R_d	$I_{PP}=3A$			1.35	Ω
Clamping Voltage	V_C	$I_{PP}=1A$ $t_p=8/20\mu s$			12	V
Junction Capacitance	$C_{I/O-I/O}$	$V_{dc}=0V, f=1MHz$			10	pf

Rating and characteristic curve

FIGURE 1
Non-repetitive Peak pulse power V.S pulse time



Quad Bi-Directional Transient Suppressor For ESD array

Rating and characteristic curve

FIGURE 2
Power Derating Curve

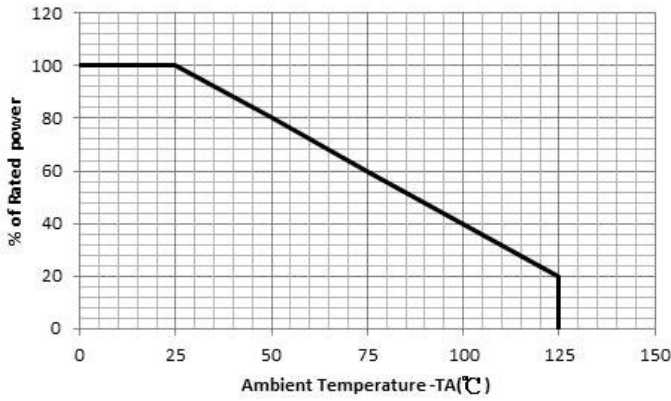


FIGURE 3
Normalized Capacitance vs.Reverse Voltage

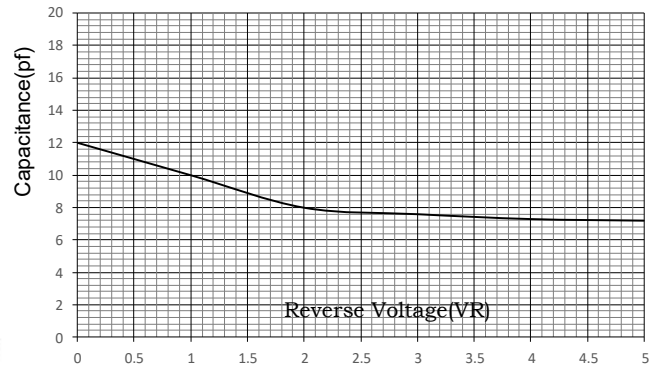


FIGURE 4
Clamping voltage versus peak pulse current

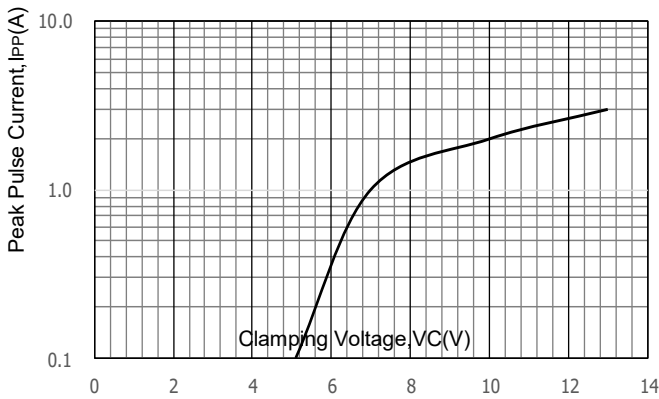


FIGURE 5
Breakdown Voltage VB Map Pin5 to 2

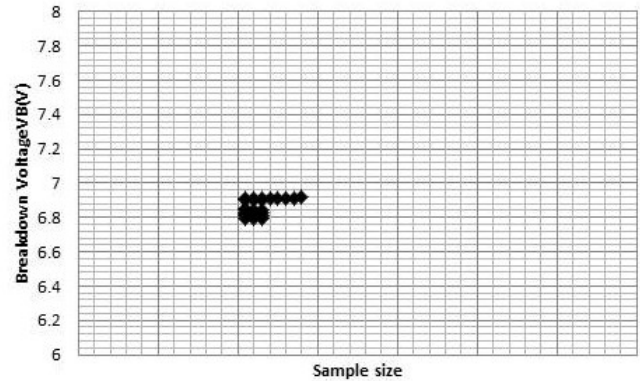
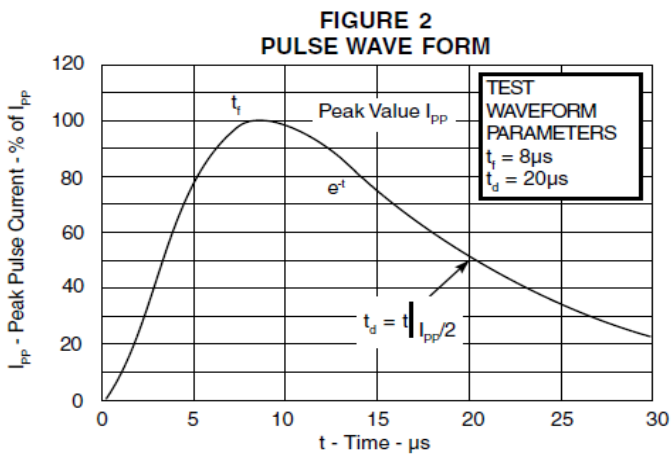


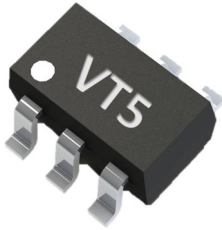
FIGURE 6
Pulse Wave Form



Quad Bi-Directional Transient Suppressor For ESD array

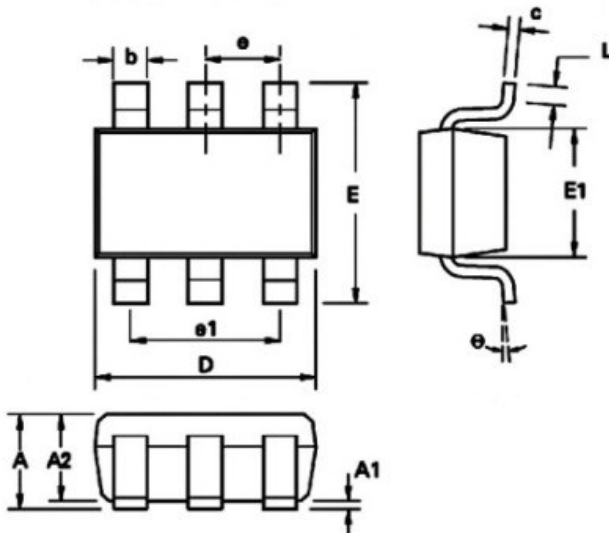
Ordering information

Marking codes



Part Number	Component Package	Quantity	Packaging Option	Packaging Specification
VCLAMP05	SOT23-6L	3,000	Tape&reel-8mm tape/7"reel	EIA STD RS-481

Package information

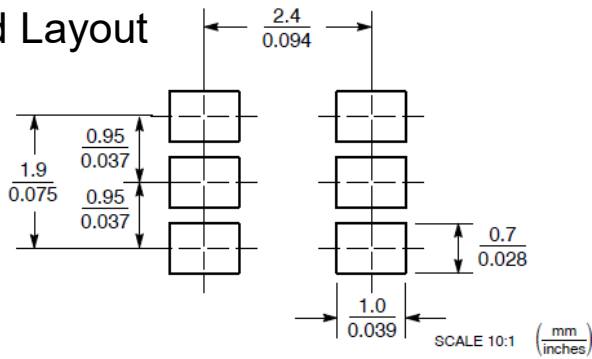


DIM	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	0.90	1.45	0.354	0.0570
A1	0.00	0.15	0.00	0.0059
A2	0.90	1.30	0.0354	0.0511
b	0.35	0.50	0.0078	0.0196
C	0.09	0.26	0.0035	0.0102
D	2.70	3.10	0.1062	0.1220
E	2.20	3.20	0.0866	0.1181
E1	1.30	1.80	0.0511	0.0708
L	0.10	0.60	0.0039	0.0236
e	0.95 REF		0.0374 REF	
e1	1.90 REF		0.0748 REF	
L	0°	30°	0°	30°

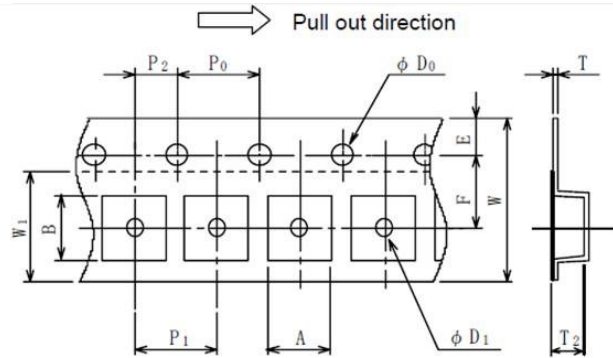
Note: Controlling dimensions are in millimeters. Approximate dimensions are provided in inches

Quad Bi-Directional Transient Suppressor For ESD array

Pad Layout



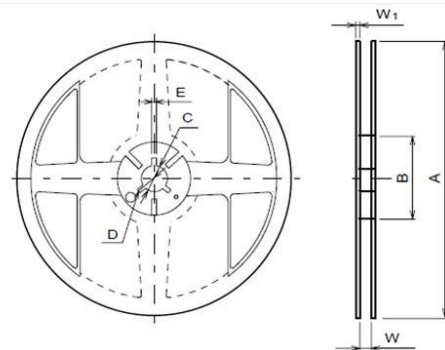
Tape & Reel information



Unit:mm

A	B	D0	D1	E	F	P0	P1	P2	T	T2	W
3.3 ± 0.1	3.2 ± 0.1	1.55	1.05	1.75 ±0.1	3.5 ± 0.05	4.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.05	0.25 ±0.05	1.57	8.0 ± 0.3

Unit:mm



A	B	C	D	E	W	W1	Contents
Ø180±1	Ø60±1	Ø13±0.2	Ø21±0.8	2±0.5	9±0.5	1.2±0.2	3,000pcs



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