

Low Capacitance TVS Diode Array

Features:

- 50 Watts Peak Pulse Power per Line ($t_p=8/20\mu s$)
- Protects Two I/O Lines
- Low Clamping Voltage
- Working Voltages : 3.3V
- Low Leakage Current
- IEC61000-4-2 (ESD) $\pm 25kV$ (air), $\pm 15kV$ (contact)
- IEC61000-4-4 (EFT) 40A (5/50ns)
- IEC61000-4-5 (Lightning) 4A (8/20 μs)

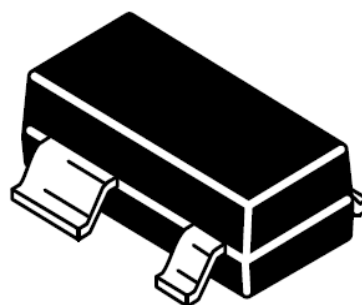
Applications:

- USB Power & Data Line Protection
- Ethernet 10BaseT
- I²C Bus Protection
- Video Line Protection
- T1/E1 secondary IC Side Protection
- Microcontroller Input Protection
- ISDN S/T Interface
- WAN/LAN Equipment

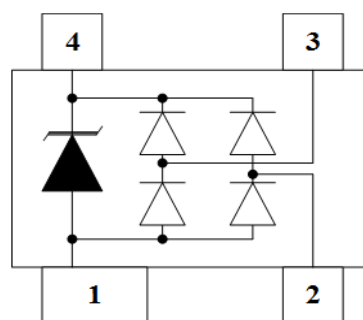
Mechanical Characteristics

- SOT-143 Package
- Molding Compound Flammability Rating : UL 94V-O
- Weight 10 Milligrams (Approximate)
- Quantity Per Reel : 3,000pcs
- Reel Size : 7 inch
- Lead Finish : Lead Free

Dimensions SOT-143



Pin Configuration



Absolute Maximum Ratings ($T_{amb}=25^{\circ}C$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μs)	P _{pp}	50	W
ESD per IEC 61000-4-2 (Air)	V _{ESD}	± 25	Kv
ESD per IEC 61000-4-2 (Contact)		± 15	
Operating Temperature Range	T _J	-55 to +125	$^{\circ}C$
Storage Temperature Range	T _{STJ}	-55 to +150	$^{\circ}C$

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

Part Number	Device Marking	V _{RWM} (V)	V _{BR} (V)	I _T (mA)	V _C @1A	V _C		I _R μA (Max)	C (Pf) (Typ.)
						(Max)	(@A)		
KWSR3.3	SLA	3.3	4	1	6.8	12.5	4	0.1	0.8

TYPIC CHARACTERISTICS

Figure 1. 8 x 20μ s Waveform

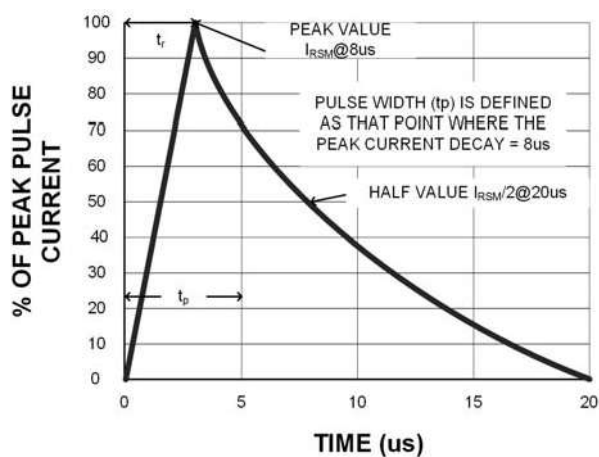


Figure 2. Power Derating Curve

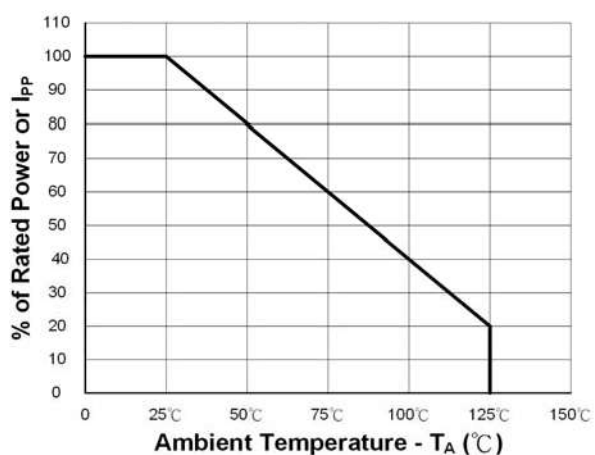


Figure 3. Clamping Voltage vs. Peak Pulse Current ($t_p=8/20\mu s$)

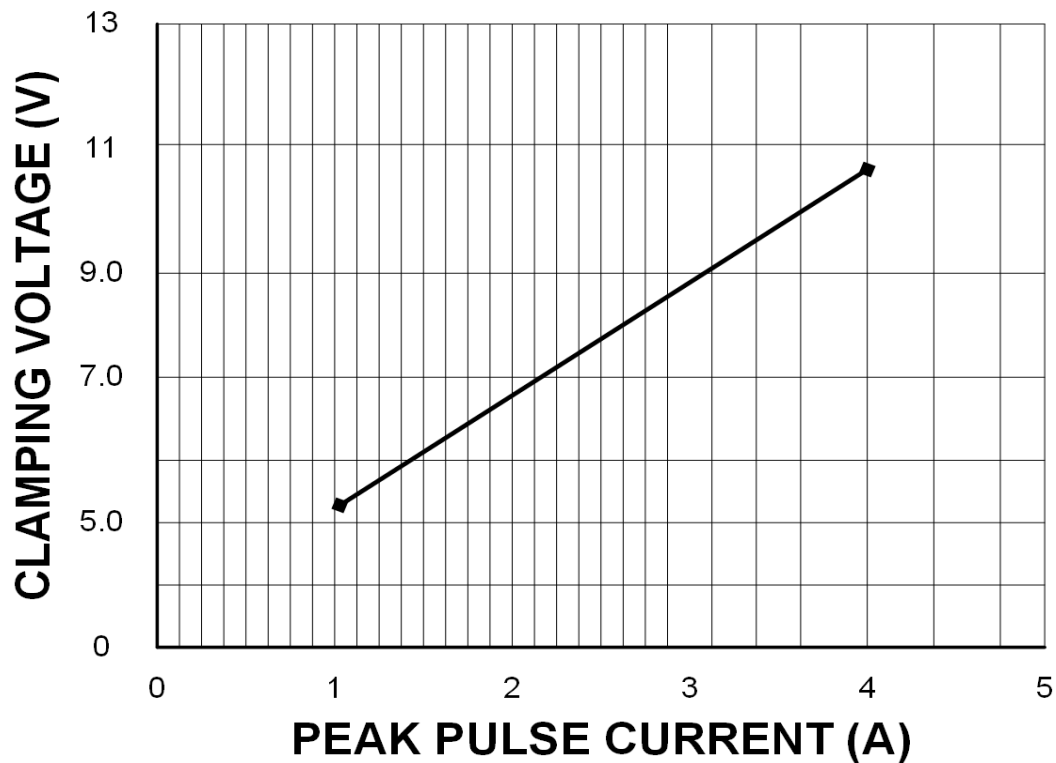
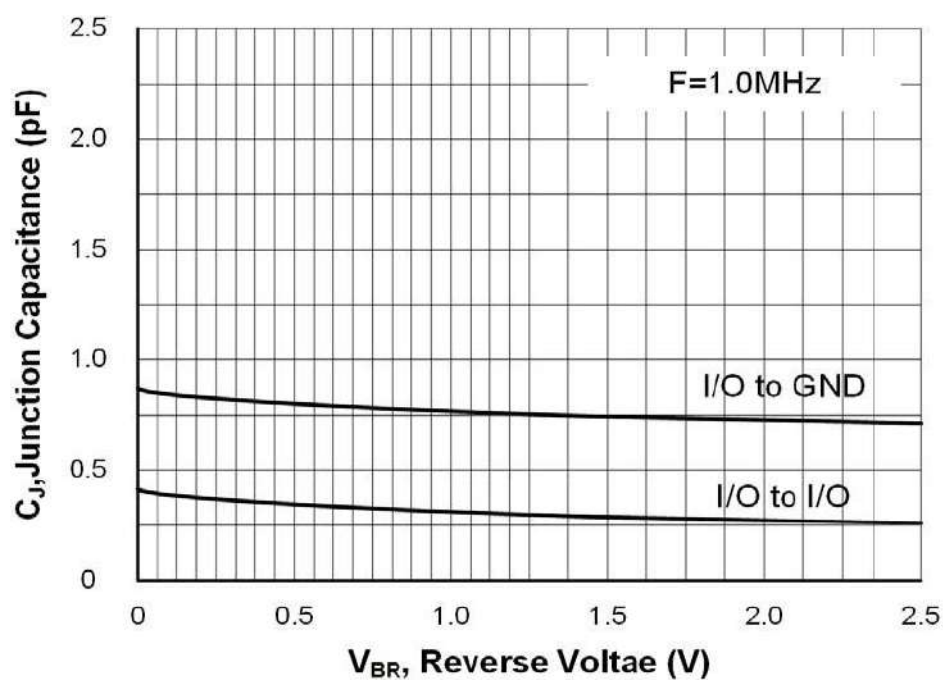
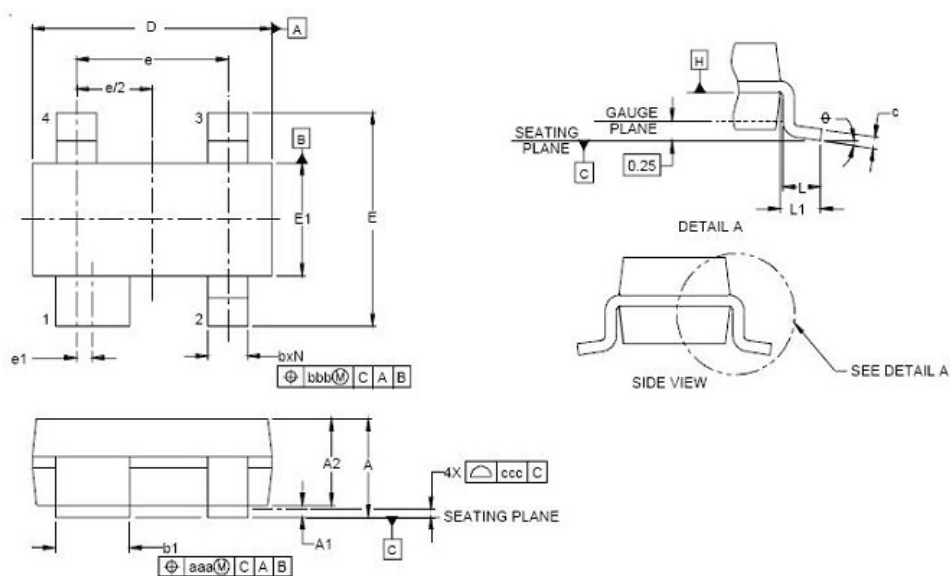


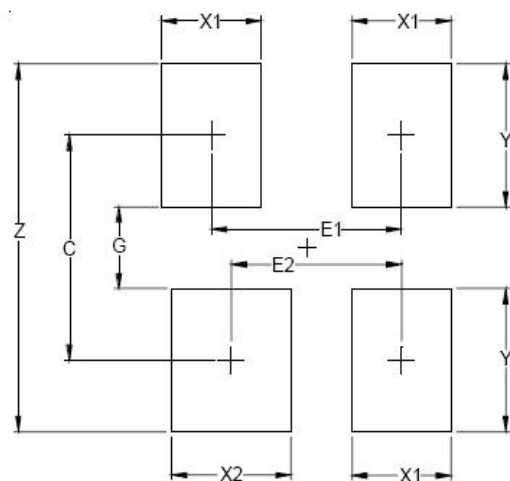
Figure 4. Typic Capacitance vs. Reverse Voltage



SOT-143 PACKAGE OUTLINE & DIMENSIONS



* SOLDERING FOOTPRINT



DIMENSIONS		
DIM	INCHES	MILLIMETERS
C	(.087)	(2.20)
E1	.076	1.92
E2	.068	1.72
G	.031	0.80
X1	.039	1.00
X2	.047	1.20
Y	.055	1.40
Z	.141	3.60