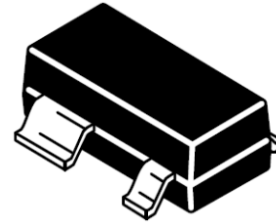


LOW CAPACITANCE TVS DIODE ARRAY

**Features**

- Ultra low leakage: nA level
- Operating voltage: 5V
- Low clamping voltage
- Complies with following standards:
  - IEC 61000-4-2 (ESD) immunity test  
Air discharge:  $\pm 15\text{kV}$   
Contact discharge:  $\pm 8\text{kV}$
  - IEC61000-4-4 (EFT) 40A (5/50ns)
  - IEC61000-4-5 (Lightning) 3A (8/20 $\mu\text{s}$ )
- RoHS Compliant

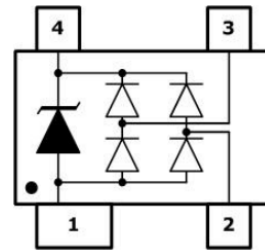
**Dimensions SOT-143**



**Applications**

- USB 2.0 power and data line
- Set-top box and digital TV
- Digital video interface (DVI)
- Notebook Computers
- SIM Ports
- 10/100 Ethernet

**Pin Configuration**



**Mechanical Characteristics**

- Package: SOT-143
- Lead Finish: Lead Free
- UL Flammability Classification Rating 94V-0
- Quantity Per Reel:3,000pcs
- Reel Size:7 inch

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

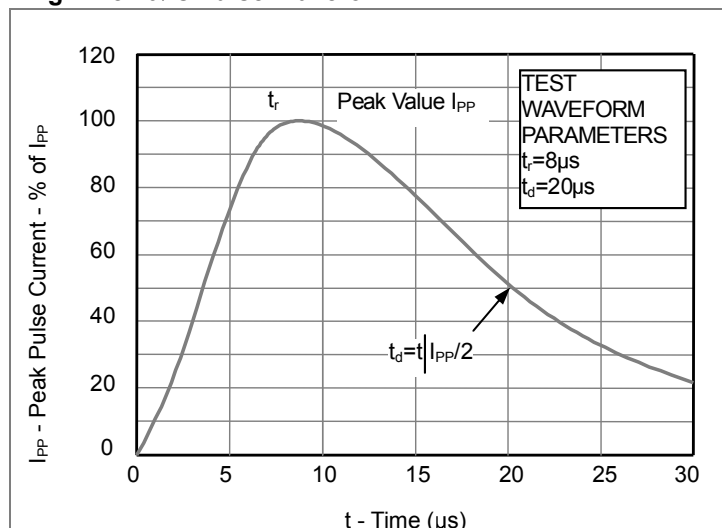
Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 $\mu\text{s}$ )	Ppp	300	W
ESD per IEC 61000-4-2 (Air)	V <sub>ESD</sub>	$\pm 15$	Kv
ESD per IEC 61000-4-2 (Contact)		$\pm 8$	
Operating Temperature Range	T <sub>J</sub>	-55 to +125	$^{\circ}\text{C}$
Storage Temperature Range	T <sub>STJ</sub>	-55 to +150	$^{\circ}\text{C}$

**Electrical Characteristics**( $T_A=25^{\circ}\text{C}$  unless otherwise specified)

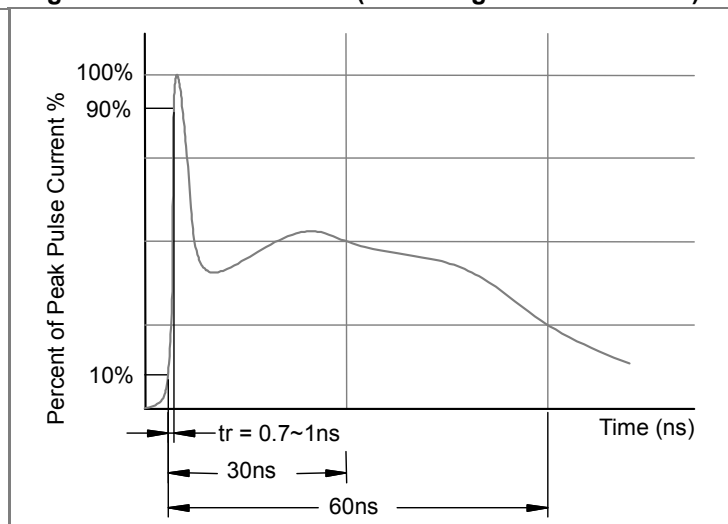
Part Number	Device Marking	$V_{RWM}$ (V)	$V_{BR}$ (V)	$I_T$ (mA)	$V_C$ @1A	$V_C$		$I_R$ $\mu\text{A}$ (Max)	C (Pf) (Typ.)
						(Max)	(@A)		
SR05	U5V0	5	6	1	9.8	23	3	1	1.2

**Characteristic Curves**

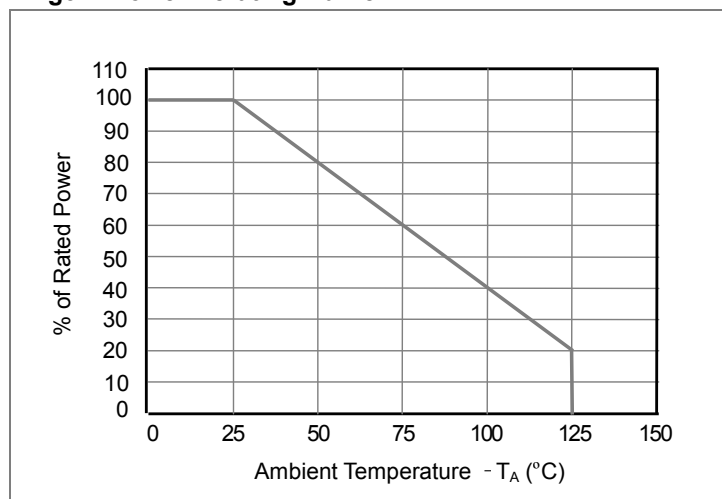
**Fig1. 8/20 $\mu\text{s}$  Pulse Waveform**



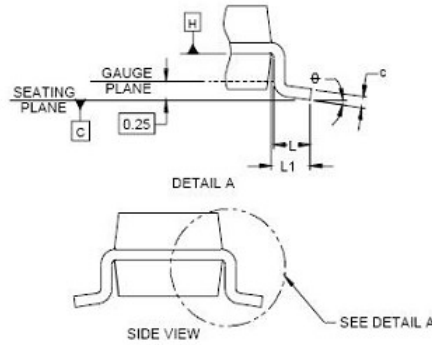
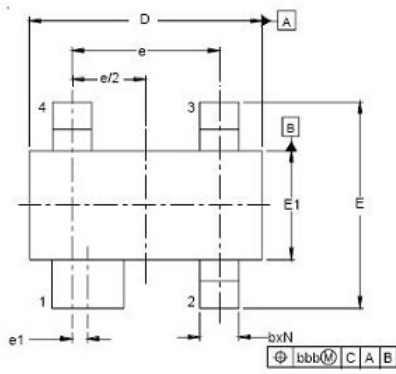
**Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)**



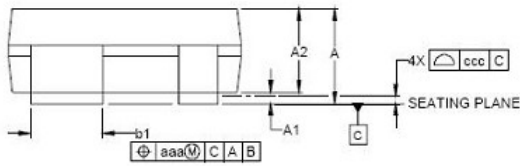
**Fig3. Power Derating Curve**



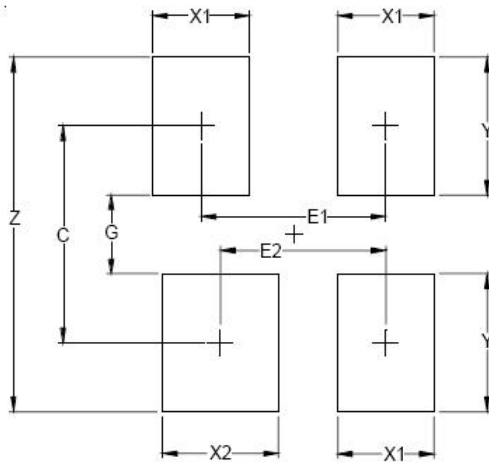
SOT-143 PACKAGE OUTLINE & DIMENSIONS



DIM	INCHES		MILLIMETERS			
	MIN	NOM	MAX	MIN	NOM	MAX
A	.031	-	.048	0.80	-	1.22
A1	.000	-	.009	0.013	-	0.15
A2	.028	.035	.042	0.75	0.90	1.07
b	.011	-	.020	0.30	-	0.51
b1	.028	-	.037	0.70	-	0.94
c	.003	-	.008	0.08	-	0.20
D	.110	.114	.120	2.80	2.90	3.04
E	.082	.093	.104	2.10	2.37	2.64
E1	.047	.051	.055	1.20	1.30	1.40
e	.075	-	-	1.92	BSC	-
e1	.008	-	-	0.20	BSC	-
L	.015	.020	.024	0.40	0.50	0.60
L1	-	(.021)	-	(0.54)	-	-
N	4	-	-	4	-	-
phi	0°	-	8°	0°	-	8°
aaa	.008	-	-	0.15	-	-
bbb	.008	-	-	0.20	-	-
ccc	.004	-	-	0.10	-	-



\* SOLDERING FOOTPRINT



DIM	DIMENSIONS	
	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