

**Features**

- Unidirectional Configuration
- Protects 2 I/O Ports & Power Supply
- Low Clamping Voltage
- Low Capacitance
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free. "Green" Device (Note 1)
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

**Maximum Ratings**

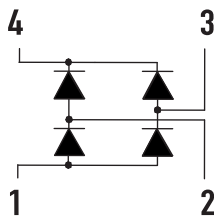
- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C

MCC Part Number	Device Marking
SR70	SR70

IEC61000-4-2(ESD)	Air Contact	±15KV ±8KV
IEC 61000-4-5(Lightning)		1KV
Peak Pulse Current(8/20µs)	I <sub>PP</sub>	24A

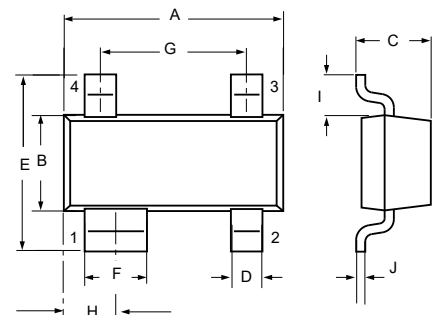
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

**Internal Structure**



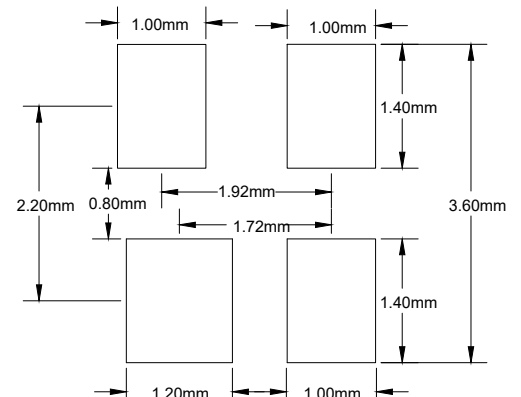
**ESD Protection Device**

**SOT-143**



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.110	0.120	2.80	3.04	
B	0.047	0.055	1.20	1.39	
C	0.031	0.048	0.80	1.22	
D	0.011	0.020	0.30	0.51	
E	0.082	0.104	2.10	2.64	
F	0.029	0.037	0.76	0.94	
G	0.070	0.080	1.78	2.03	
H	0.028	0.033	0.72	0.83	
I	0.015	0.024	0.40	0.60	
J	0.003	0.008	0.08	0.20	

**Suggested Solder Pad Layout**



**Electrical Characteristics @ 25°C (Unless Otherwise Specified)**

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Peak Reverse Stand-Off Voltage	$V_{RRM}$				70	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T = 50\mu A$	85			V
Reverse Leakage Current	$I_R$	$V_{RWM} = 70V$			5	$\mu A$
Forward Clamping Voltage	$V_{FC}$	$I_{PP} = 1A, t_p = 8/20\mu s$			1.5	V
Forward Clamping Voltage	$V_{FC}$	$I_{PP} = 10A, t_p = 8/20\mu s$			3.3	V
Forward Clamping Voltage	$V_{FC}$	$I_{PP} = 24A, t_p = 8/20\mu s$			7	V
Junction Capacitance	$C_J$	$V_R = 0V, f = 1MHz,$ Between I/O pin and Ground		5	10	pF
Junction Capacitance	$C_J$	$V_R = 0V, f = 1MHz,$ Between I/O Pins		3		pF

## Curve Characteristics

Fig. 1 - 8 X 20 $\mu$ s Pulse Waveform

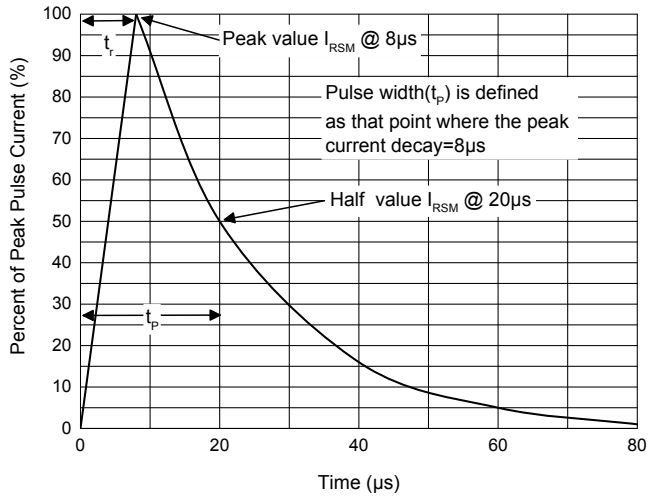


Fig. 2 - Pulse Derating Curve

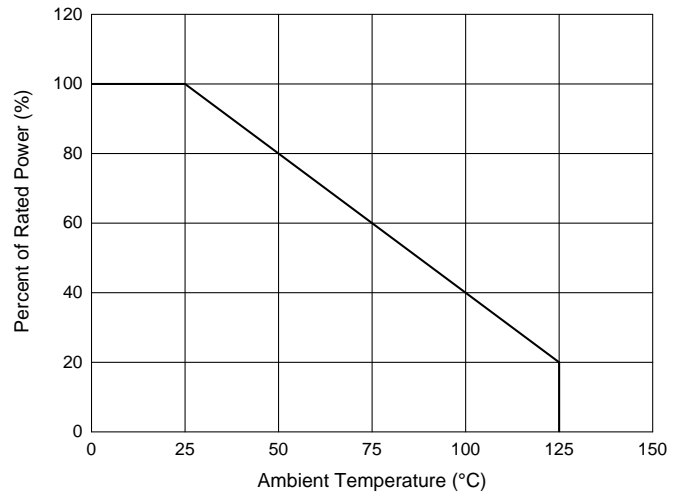


Fig. 3 - Forward Voltage Characteristics

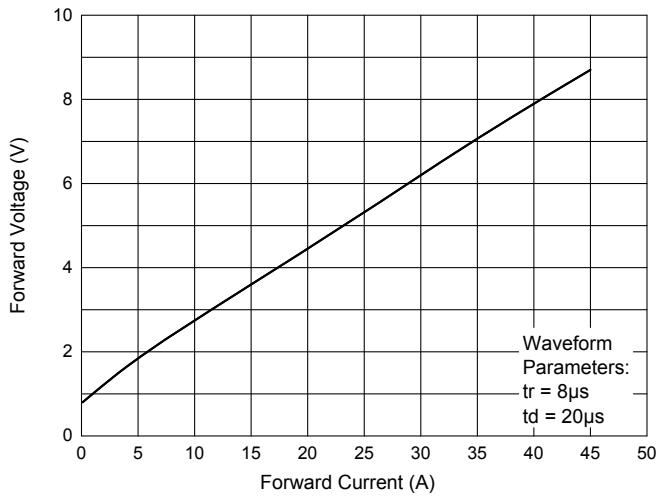
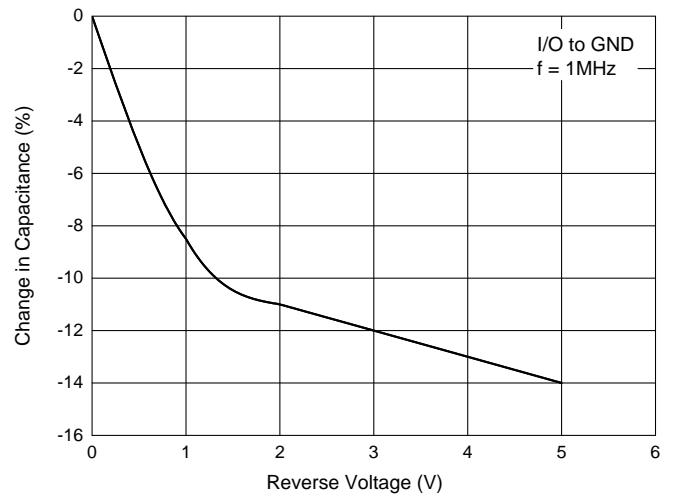


Fig. 4 - Change in Capacitance Characteristics



## Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

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