

#### **Features**

- · For Sensitive ESD Protection
- · Excellent Clamping Capability
- · Low Leakage
- · For Space Saving Application
- · Fast Response, Response Time Less than 1ns
- 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)

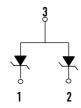
## **Maximum Ratings**

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: 55°C to +150°C
- Thermal Resistance: 556°C/W Junction to Ambient

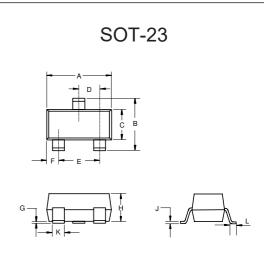
MCC Part Number	Device Marking		
ESD3V3AP	3M3		
IEC61000-4-2(ESD)	Air Contact	±15KV ±8KV	
JESD22-A114-B(ESD)	Human Body	16KV	
Peak Pulse Current(8/20µs)	I <sub>PP</sub>	13.3A	
Peak Pulse Power (8/20us)	P <sub>PK</sub>	300W	
Power Dissipation	P <sub>D</sub>	225mW	

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

#### **Circuit and Pin Schematic**

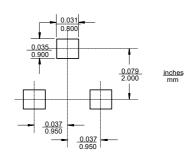


# ESD Protection Device



	DIMENSIONS				
DIM INCHES		MM		NOTE	
DIIVI	MIN MAX MIN MAX	NOTE			
Α	0.110	0.120	2.80	3.04	
В	0.083	0.104	2.10	2.64	
С	0.047	0.055	1.20	1.40	
D	0.034	0.041	0.85	1.05	
E	0.067	0.083	1.70	2.10	
F	0.018	0.024	0.45	0.60	
G	0.0004	0.006	0.01	0.15	
Н	0.035	0.043	0.90	1.10	
J	0.003	0.007	0.08	0.18	
K	0.012	0.020	0.30	0.51	
L	0.007	0.020	0.20	0.50	

## Suggested Solder Pad Layout



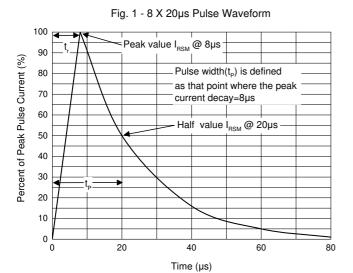


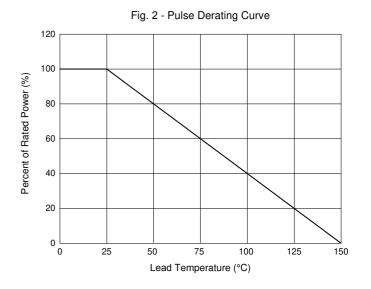
## Electrical Characteristics @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Conditions	Min.	Тур.	Max.	Units
Reverse Working Voltage	$V_{RWM}$				3.3	V
Reverse Breakdown Voltage	$V_{BR}$	I <sub>T</sub> =1mA	5		5.9	V
Reverse Leakage Current	I <sub>R</sub>	V <sub>RWM</sub> =3.3V			10	μA
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> = 10mA			0.9	V
Clamping Voltage	V <sub>C</sub>	I <sub>PP</sub> =1A, t <sub>P</sub> =8/20µs			7.5	V
Junction Capacitance	С	$V_R = 0V$ , $f = 1MHz$ , Pin 1 to 3		150		pF



## **Curve Characteristics**







## **Ordering Information**

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

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