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# ESDBU5V0AE1

## ESD Protection Device

### Features

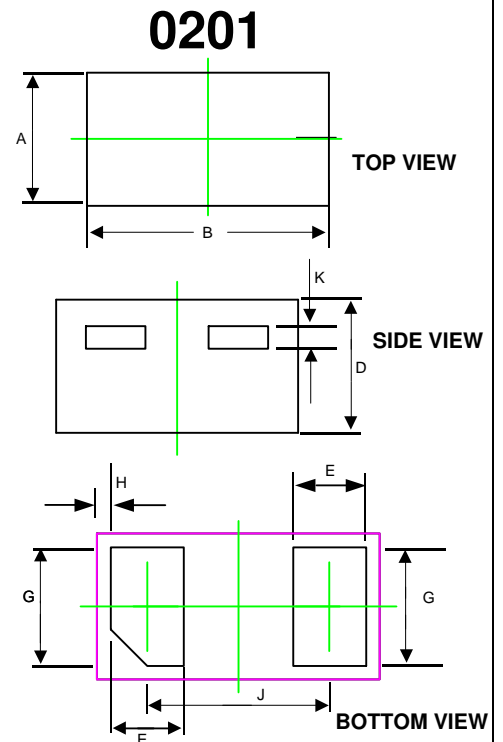
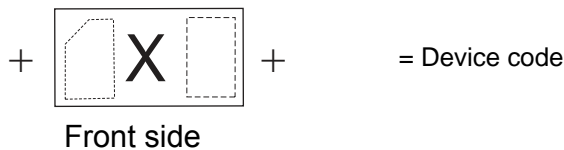
- Bi-directional ESD protection of one line
- Low capacitance: 0.9pF
- Reverse stand-off voltage: 5V
- IEC 61000-4-2 level 3 ESD protection
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

### Maximum Ratings

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

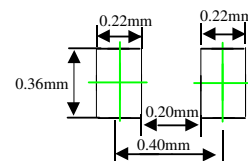
Parameter	Symbol	Limits	unit
IEC61000-4-2(ESD) Air Contact		± 15 ± 15	KV
ESD Voltage per human body model		16	KV
ESD Voltage Machine Modele		400	V
Peak Pulse Power <sup>(2)</sup>	Ppp	80	W
Peak Pulse Current <sup>(2)</sup>	Ipp	4	A

### Marking:



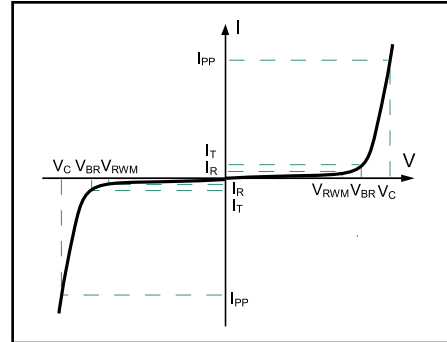
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.011	0.015	0.27	0.37	
B	0.022	0.026	0.57	0.67	
D	0.011	0.013	0.275	0.34	
E	0.005	0.008	0.125	0.195	
G	0.009	0.012	0.225	0.295	
H	0.001 REF.		0.030 REF.		
J	0.014	0.017	0.365	0.435	
K	0.002 REF.		0.050 REF.		

### SUGGESTED SOLDER PAD LAYOUT



**ELECTRICAL PARAMETER**

Symbol	Parameter
$V_C$	Clamping Voltage @ $I_{PP}$
$I_{PP}$	Peak Pulse Current
$V_{BR}$	Breakdown Voltage @ $I_T$
$I_T$	Test Current
$I_R$	Reverse Leakage Current @ $V_{RWM}$
$V_{RWM}$	Reverse Standoff Voltage



V-I characteristics for a Bi-directional TVS

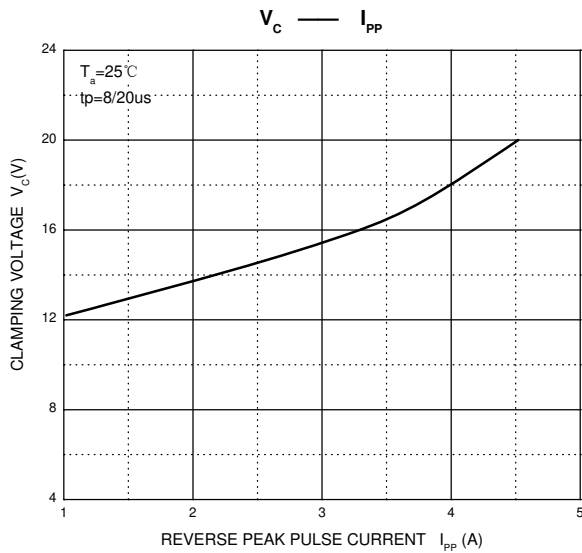
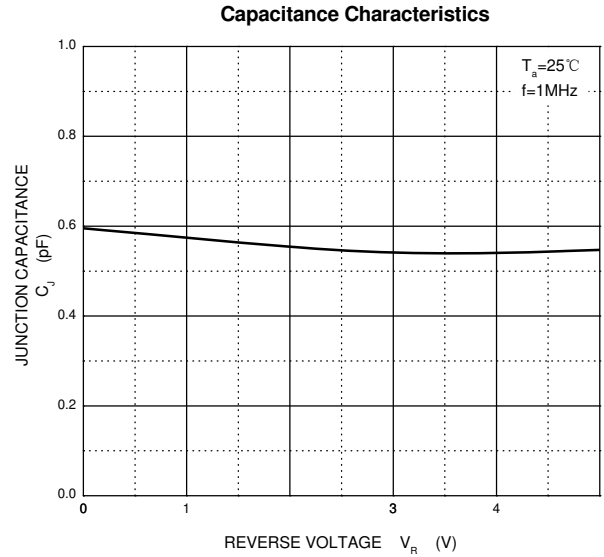
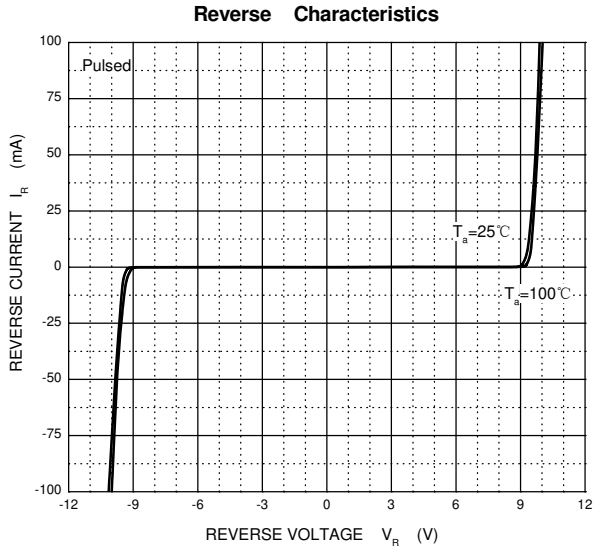
**ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ\text{C}$  unless otherwise specified)**

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse stand off voltage	$V_{RWM}^{(1)}$				5	V
Reverse leakage current	$I_R$	$V_{RWM}=5\text{V}$			1	$\mu\text{A}$
Breakdown voltage	$V_{(BR)}$	$I_T=1\text{mA}$	6.5	9.0		V
Clamping voltage	$V_C^{(2)}$	$I_{PP}=4\text{A}$			20	V
Junction capacitance	$C_J$	$V_R=0\text{V}, f=1\text{MHz}$			0.9	pF

(1). Other voltages available upon request.

(2). Non-repetitive current pulse 8/20 $\mu\text{s}$  exponential decay waveform according to IEC61000-4-5

**TYPICAL CHARACTERISTICS**





**Ordering Information :**

Device	Packing
Part Number-TP	Tape&Reel: 10Kpcs/Reel

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