



Micro Commercial Components



Micro Commercial Components  
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# ESDBV5V0AE2

## ESD Protection Device

### Features

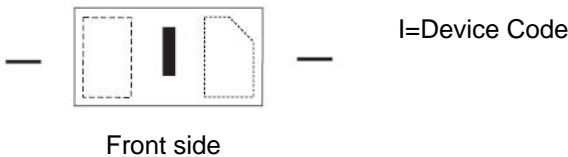
- Bi-directional ESD protection of one line
- Low reverse stand-off voltage:5V
- Low leakage
- Low clamping voltage
- IEC 61000-4-2 level 4 ESD protection
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture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

### Maximum Ratings

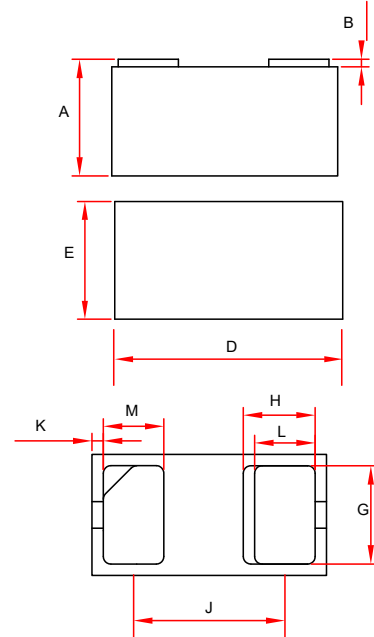
- Operating Junction & Storage Temperature: -55°C to +150°C

Parameter	Symbol	Limits	unit
IEC61000-4-2(ESD) Air Contact		$\pm 15$ $\pm 8$	KV
ESD Voltage per human body model		16	KV
ESD Voltage Machine Modele		400	V
Peak Pulse Power(8/20us Waveform)	Ppp	52	W
Peak Pulse Current(8/20us Waveform)	Ipp	4	A

### Marking Code:

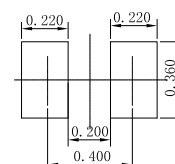


### Pin Configuration



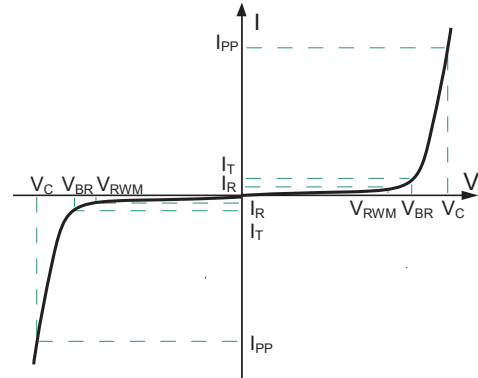
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.011	0.013	0.275	0.345	
B	0.000	0.004	0.010	0.090	
D	0.022	0.026	0.570	0.670	
E	0.011	0.015	0.270	0.370	
G	0.009	0.012	0.225	0.295	
H	0.007	REF.	0.190	REF.	
J	0.014	0.017	0.365	0.435	
K	0.001	REF.	0.030	REF.	
L	0.005	0.008	0.125	0.195	
M	0.005	0.008	0.125	0.195	

### SUGGESTED SOLDER PAD LAYOUT



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

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



**Electrical characteristics per line @25 °C ( unless otherwise specified)**

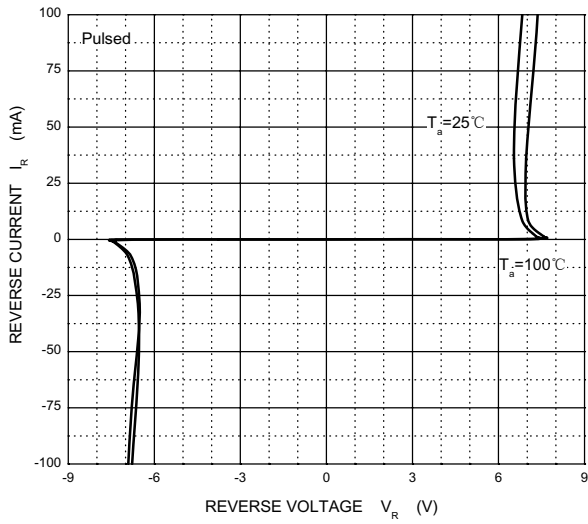
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Working Voltage(note1)	$V_{RWM}$				5	V
Breakdown Voltage	$V_{BR}$	$I_t = 1\text{mA}$	5.6		8.0	V
Reverse Leakage Current	$I_R$	$V_{RWM} = 5\text{V}$			1	$\mu\text{A}$
Clamping Voltage(note2)	$V_C$	$I_{PP} = 4\text{A}$		10	13	V
Total Capacitance	$C_{tot}$	$V_R = 0\text{V}$ $f = 1\text{MHz}$		2		pF

Note1: Other voltages available upon request.

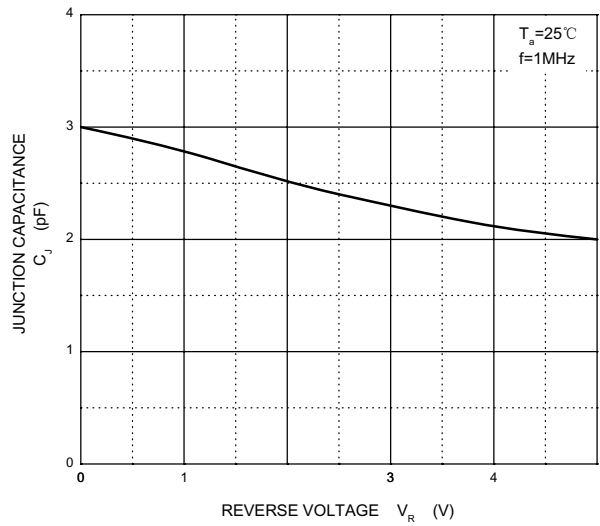
Note2: Non-repetitive current pulse 8/20 $\mu\text{s}$  exponential decay waveform according to IEC61000-4-5.

## Typical Characteristics

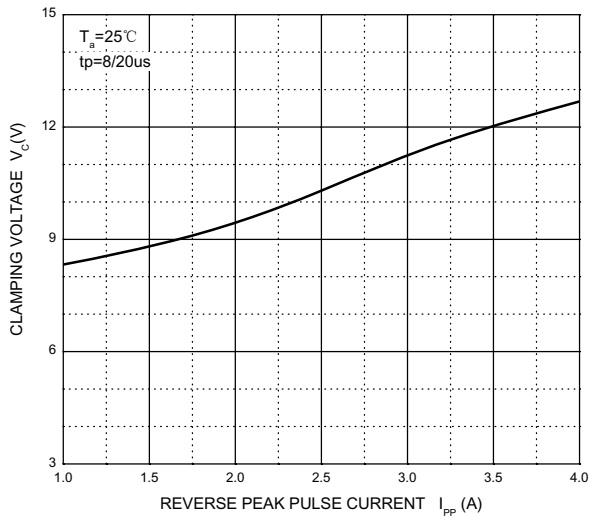
**Reverse Characteristics**



**Capacitance Characteristics**



**$V_C$  ---  $I_{PP}$**





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### Ordering Information :

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

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