



Micro Commercial Components



Micro Commercial Components
 20736 Marilla Street Chatsworth
 Chatsworth, CA 91311
 Phone: (818) 701-4933
 Fax: (818) 701-4939

ESDBV5V0AE2

ESD Protection Device

Features

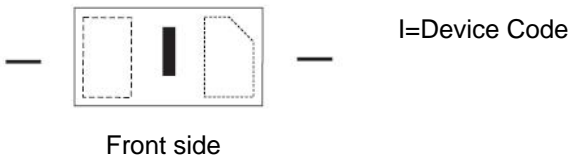
- Bi-directional ESD protection of one line
- Low reverse stand-off voltage:5V
- Low leakage
- Low clamping voltage
- IEC 61000-4-2 level 4 ESD protection
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture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

Maximum Ratings

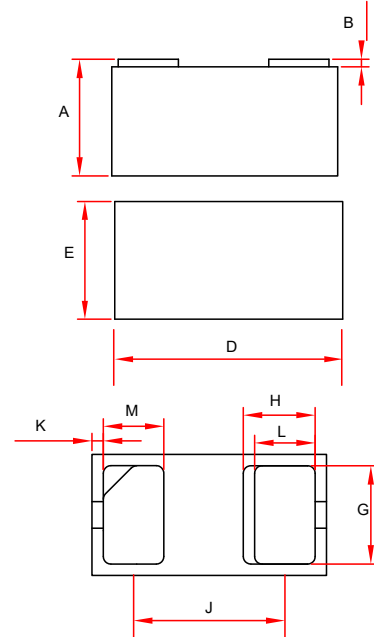
- Operating Junction & Storage Temperature: -55°C to +150°C

Parameter	Symbol	Limits	unit
IEC61000-4-2(ESD) Air Contact		±15 ±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:

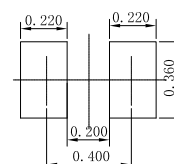


Pin Configuration



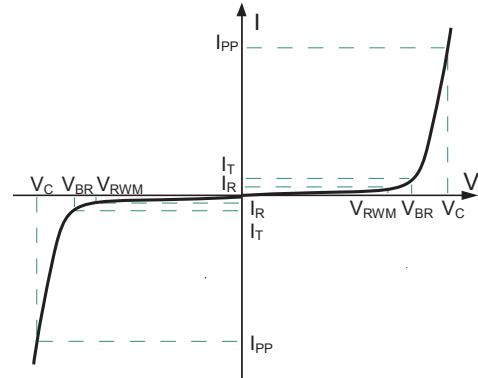
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.011	0.013	0.275	0.345	
B	0.000	0.004	0.010	0.090	
D	0.022	0.026	0.570	0.670	
E	0.011	0.015	0.270	0.370	
G	0.009	0.012	0.225	0.295	
H	0.007 REF.		0.190 REF.		
J	0.014	0.017	0.365	0.435	
K	0.001 REF.		0.030 REF.		
L	0.005	0.008	0.125	0.195	
M	0.005	0.008	0.125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

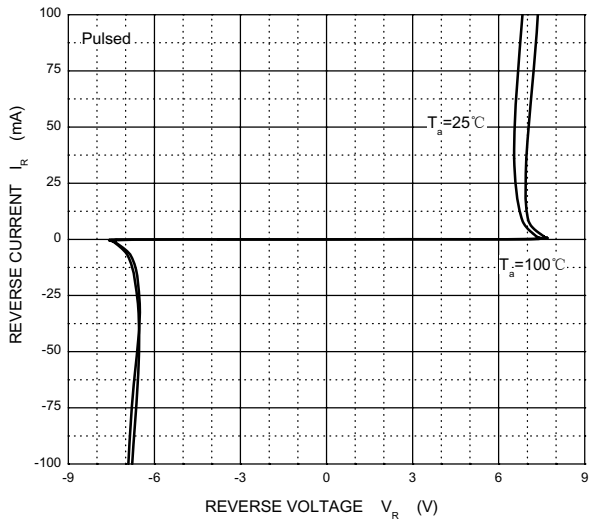
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Working Voltage(note1)	V_{RWM}				5	V
Breakdown Voltage	V_{BR}	$I_t = 1\text{mA}$	5.6		8.0	V
Reverse Leakage Current	I_R	$V_{RWM} = 5\text{V}$			1	μA
Clamping Voltage(note2)	V_C	$I_{PP} = 4\text{A}$		10	13	V
Total Capacitance	C_{tot}	$V_R = 0\text{V}$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

Note1: Other voltages available upon request.

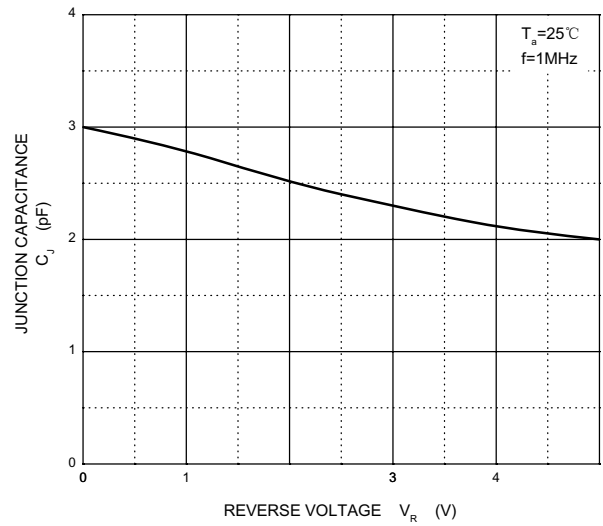
Note2: Non-repetitive current pulse 8/20 μs exponential decay waveform according to IEC61000-4-5.

Typical Characteristics

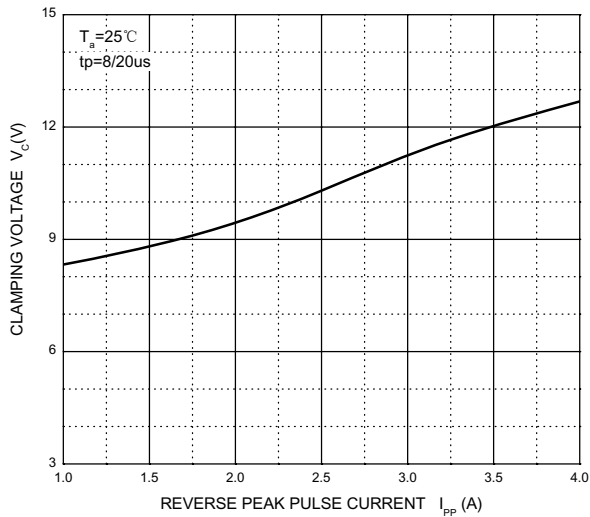
Reverse Characteristics



Capacitance Characteristics



V_C vs I_{PP}





Micro Commercial Components

Ordering Information :

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

*****IMPORTANT NOTICE*****

Micro Commercial Components Corp. reserves the right to make changes without further notice to any product herein to make corrections, modifications , enhancements , improvements , or other changes . **Micro Commercial Components Corp .** does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights ,nor the rights of others . The user of products in such applications shall assume all risks of such use and will agree to hold **Micro Commercial Components Corp .** and all the companies whose products are represented on our website, harmless against all damages.

*****LIFE SUPPORT*****

MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.

*****CUSTOMER AWARENESS*****

Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. **MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources.** MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.

www.mccsemi.com