



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



# SMBSAC5.0 THRU SMBSAC50

## Features

- For surface mount applications in order to optimize board space
- Lead Free Finish/Rohs Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)
- Excellent clamping capability
- Fast response time: typical less than 1.0ps from 0 volts to  $V_{BR}$  minimum
- Halogen free available upon request by adding suffix "-HF"
- Ideal for data line applications
- UL Recognized File# E331408

## Mechanical Data

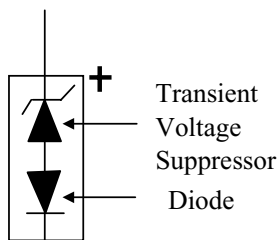
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Terminals: solderable per MIL-STD-750, Method 2026
- The band denotes TVS cathode
- Maximum soldering temperature: 260°C for 10 seconds

### Maximum Ratings @ 25°C Unless Otherwise Specified

Peak Pulse Current on 10/1000us waveform	$I_{PP}$	See Table 1	Note: 2
Peak Pulse Power Dissipation	$P_{PP}$	500W	Note: 2, 3
Steady State Power Dissipation $T_L = 75^\circ\text{C}$ With at lead lengths 0.375"(9.5mm)	$P_D$	3	Watt
Operation and Storage Temperature Range	$T_J, T_{STG}$	-55°C to +175°C	

### NOTES:

1. High Temperature Solder Exemptions Applied, see EU Directive Annex 7.
2. Non-repetitive current pulse, per Fig.3 and derated above  $T_A = 25^\circ\text{C}$  per Fig.2.
3. Mounted on 5.0mm<sup>2</sup> copper pads to each terminal.



Schematic Diagram

## Low Capacitance Transient Voltage Suppressors 5 to 50 Volts 500Watt

### DO-214AA (SMB) (LEAD FRAME)

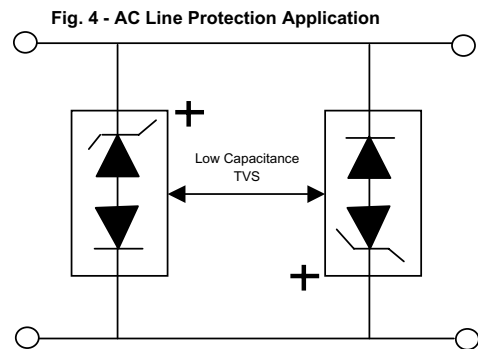
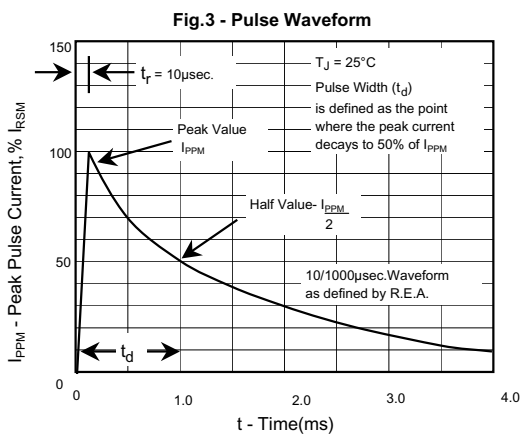
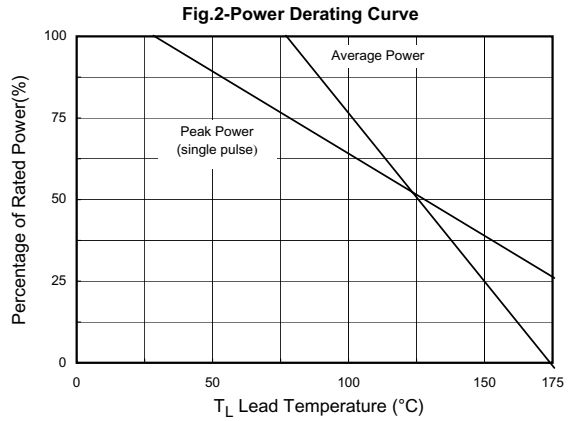
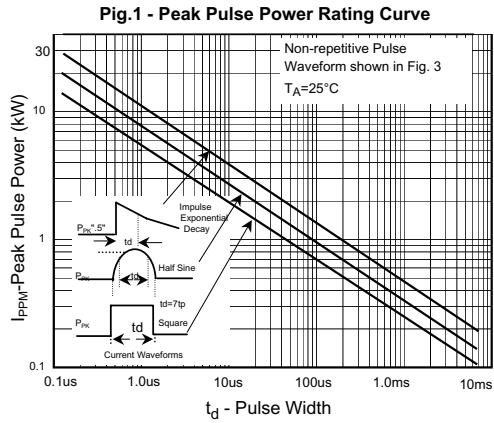
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.083	.096	2.13	2.44	
B	.075	.086	1.91	2.20	
C	.002	.008	0.051	0.203	
D	.006	.012	0.152	0.305	
E	.030	.060	0.76	1.52	
F	.200	.220	5.08	5.59	
G	.160	.185	4.06	4.70	
H	.130	.155	3.30	3.94	

#### SUGGESTED SOLDER PAD LAYOUT

# SMBSAC 5.0THRU SMBSAC50

MCC PART NUMBERS	Marking Code	STAND-OFF VOLTAGE $V_{WM}$ (VOLTS)	MINIMUM BREAKDOWN VOLTAGE AT $I_T=1.0mA$ $V(BR)$ (VOLTS)	MAXIMUM REVERSE LEAKAGE AT $V_{WM}$ $I_R(\mu A)$	MAXIMUM CLAMPING VOLTAGE AT $I_{pp}=5.0A$ $V_C$ (V)	MAXIMUM PEAK PULSE CURRENT PER FIG.3 $I_{pp}$ (AMPS)	MAXIMUM JUNCTION CAPACITANCE AT 0 VOLTS (pF)	WORKING INVERSE BLOCKING VOLTAGE $V_{WIB}$ (VOLTS)	INVERSE BLOCKING LEAKAGE CURRENT $V_{WIB}$ IIB(mA)	PEAK INVERSE BLOCKING VOLTAGE $V_{PIB}$ (VOLTS)
SMBSAC5.0	<i>SKE</i>	5.0	7.6	300	10.0	44.0	45	75	1.0	100
SMBSAC6.0	<i>SKG</i>	6.0	7.9	300	11.2	41.0	45	75	1.0	100
SMBSAC7.0	<i>SKM</i>	7.0	8.3	300	12.6	38.0	45	75	1.0	100
SMBSAC8.0	<i>SKR</i>	8.0	8.9	100	13.4	36.0	45	75	1.0	100
SMBSAC8.5	<i>SKT</i>	8.5	9.44	50	14.0	34.0	45	75	1.0	100
SMBSAC10	<i>SKX</i>	10.0	11.10	5	16.3	29.0	45	75	1.0	100
SMBSAC12	<i>SLE</i>	12.0	13.30	5	19.0	25.0	45	75	1.0	100
SMBSAC15	<i>SLM</i>	15.0	16.70	5	23.6	20.0	45	75	1.0	100
SMBSAC18	<i>SLT</i>	18.0	20.00	5	28.8	15.0	45	75	1.0	100
SMBSAC22	<i>SLX</i>	22.0	24.40	5	35.4	14.0	45	75	1.0	100
SMBSAC26	<i>SME</i>	26.0	28.90	5	42.3	11.1	45	75	1.0	100
SMBSAC30	<i>SMK</i>	30.0	33.30	5	48.6	10.0	45	75	1.0	100
SMBSAC36	<i>SMP</i>	36.0	40.00	5	60.0	8.6	45	75	1.0	100
SMBSAC45	<i>SMV</i>	45.0	50.00	5	77.0	6.8	45	150	1.0	200
SMBSAC50	<i>SMZ</i>	50.0	55.50	5	88.0	5.8	45	150	1.0	200

# Electrical Ratings and Characteristic Curves ( $T_A=25^\circ\text{C}$ unless otherwise specified)



**Application Note:** Device must be used with two units in parallel, opposite in polarity as shown in circuit for AC signal line protection.





TM

Micro Commercial Components

### Ordering Information :

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

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

#### \*\*\*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](http://www.mccsemi.com)