

# 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

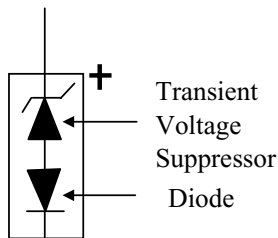
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Terminals: solderable per MIL-STD-750, Method 2026
- The band denotes TVS cathode
- Maximum soldering temperature: 260°C for 10 seconds

### 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)

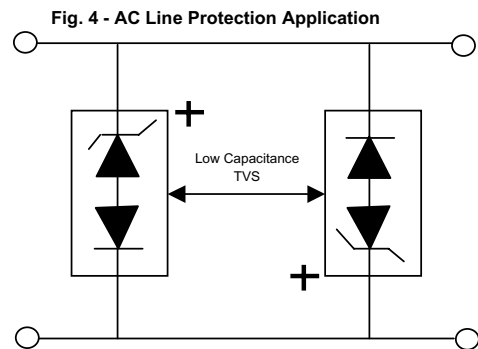
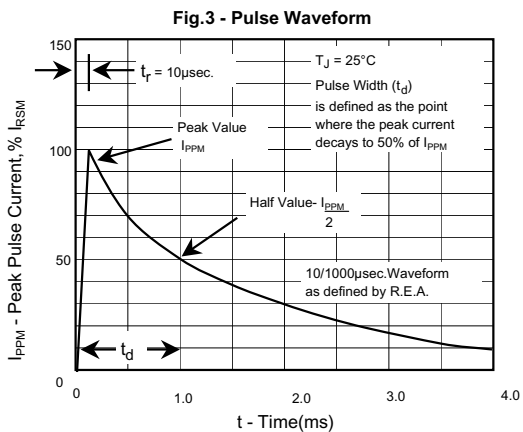
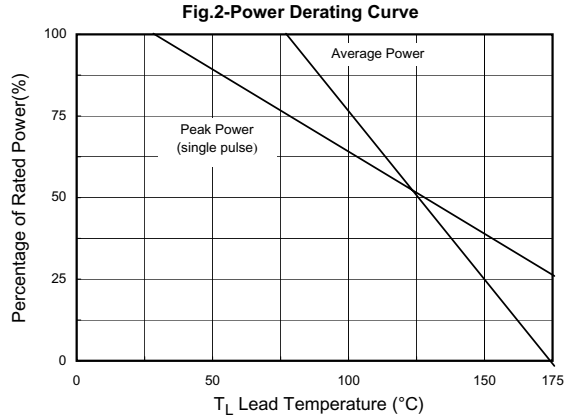
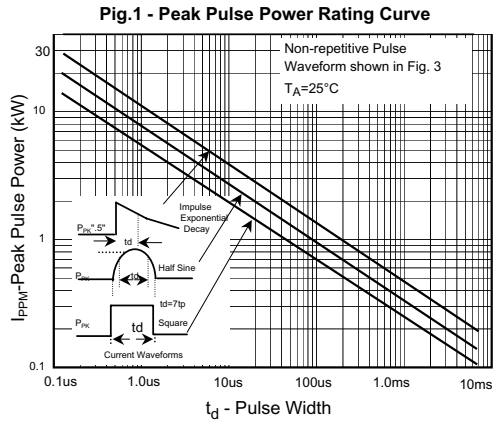
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.083	.096	2.13	2.44	
B	.075	.086	1.91	2.20	
C	.002	.008	0.051	0.203	
D	.006	.012	0.152	0.305	
E	.030	.060	0.76	1.52	
F	.200	.220	5.08	5.59	
G	.160	.185	4.06	4.70	
H	.130	.155	3.30	3.94	

#### 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.



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## Ordering Information :

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

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

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