

# SMBSAC5.0 THRU SMBSAC50

## Features

- For surface mount applications in order to optimize board space
- Excellent clamping capability
- Fast response time: typical less than 1.0ps from 0 volts to  $V_{BR}$  minimum
- Ideal for data line applications
- UL Recognized File # E222849

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

## Mechanical Data

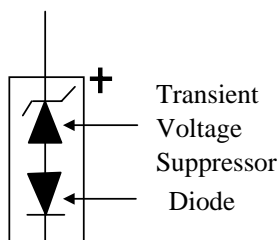
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Terminals: solderable per MIL-STD-750, Method 2026
- The band denotes TVS cathode
- Maximum soldering temperature: 260°C for 10 seconds

Maximum Ratings @ 25°C Unless Otherwise Specified

Peak Pulse Current on 10/1000us waveform	$I_{PP}$	See Table 1	Note: 1
Peak Pulse Power Dissipation	$P_{PP}$	500W	Note: 1, 2
Steady State Power Dissipation $T_L = 75^\circ C$ 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	

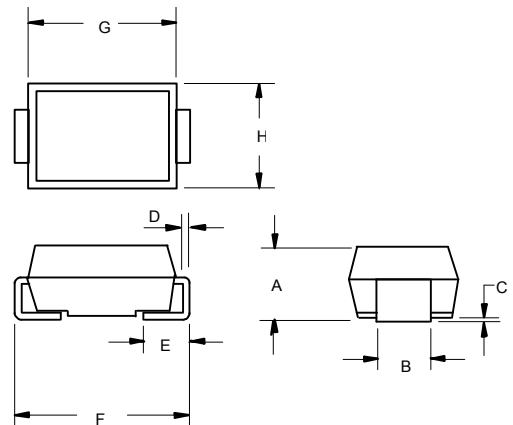
### NOTES:

1. Non-repetitive current pulse, per Fig.3 and derated above  $T_A = 25^\circ C$  per Fig.2.
2. Mounted on 5.0mm<sup>2</sup> copper pads to each terminal.



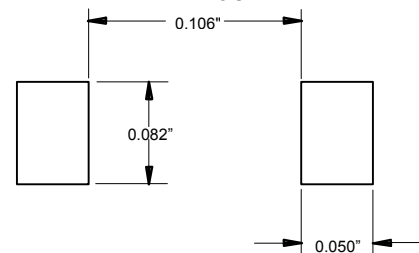
Schematic Diagram

## 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	

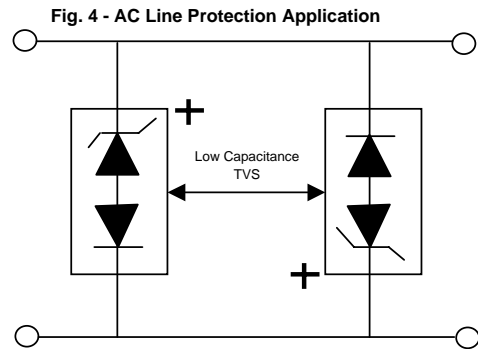
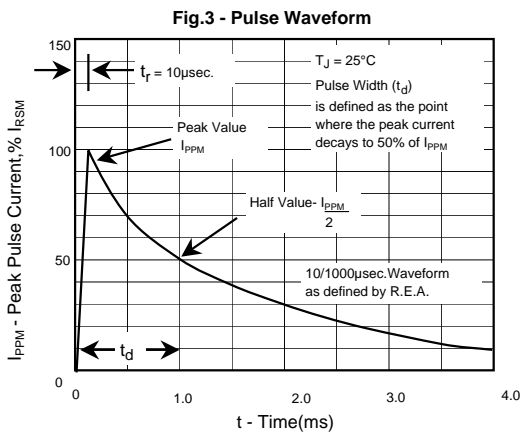
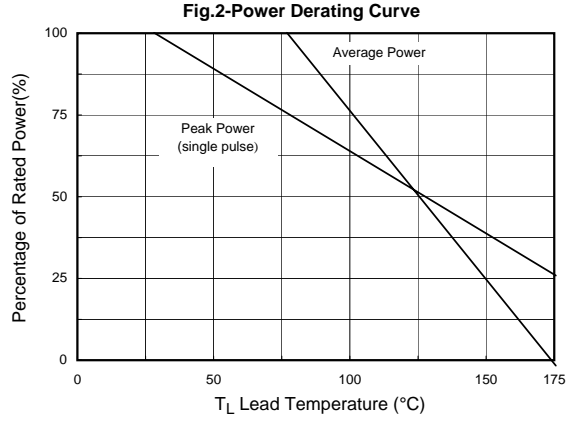
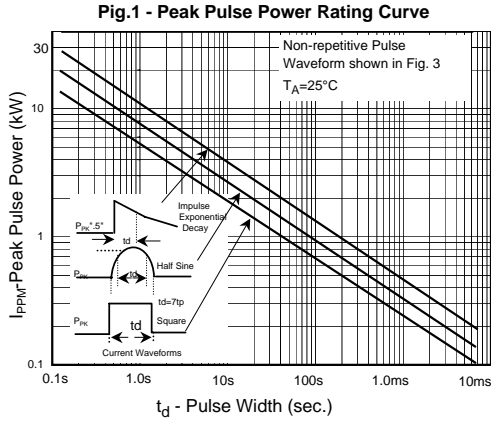
### SUGGESTED SOLDER PAD LAYOUT



# 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	<b>SKE</b>	5.0	7.6	300	10.0	44.0	45	75	1.0	100
SMBSAC6.0	<b>SKG</b>	6.0	7.9	300	11.2	41.0	45	75	1.0	100
SMBSAC7.0	<b>SKM</b>	7.0	8.3	300	12.6	38.0	45	75	1.0	100
SMBSAC8.0	<b>SKR</b>	8.0	8.9	100	13.4	36.0	45	75	1.0	100
SMBSAC8.5	<b>SKT</b>	8.5	9.44	50	14.0	34.0	45	75	1.0	100
SMBSAC10	<b>SKX</b>	10.0	11.10	5	16.3	29.0	45	75	1.0	100
SMBSAC12	<b>SLE</b>	12.0	13.30	5	19.0	25.0	45	75	1.0	100
SMBSAC15	<b>SLM</b>	15.0	16.70	5	23.6	20.0	45	75	1.0	100
SMBSAC18	<b>SLT</b>	18.0	20.00	5	28.8	15.0	45	75	1.0	100
SMBSAC22	<b>SLX</b>	22.0	24.40	5	35.4	14.0	45	75	1.0	100
SMBSAC26	<b>SME</b>	26.0	28.90	5	42.3	11.1	45	75	1.0	100
SMBSAC30	<b>SMK</b>	30.0	33.30	5	48.6	10.0	45	75	1.0	100
SMBSAC36	<b>SMP</b>	36.0	40.00	5	60.0	8.6	45	75	1.0	100
SMBSAC45	<b>SMV</b>	45.0	50.00	5	77.0	6.8	45	150	1.0	200
SMBSAC50	<b>SMZ</b>	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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