



Micro Commercial Components



Micro Commercial Components  
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## SAC5.0 THRU SAC50

### Features

- Lead Free Finish/Rohs Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)
- Glass Passivated Junction
- Excellent Clamping Capability
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- UL Recognized File # E331408
- Halogen free available upon request by adding suffix "-HF"

### Mechanical Data

- Weight : 0.4g

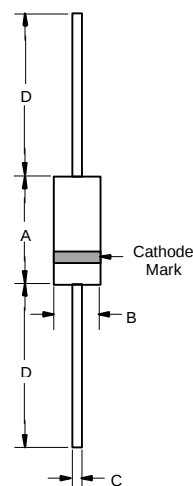
### Maximum Ratings

|                                                                                              | Symbol      | Value      | Units              |
|----------------------------------------------------------------------------------------------|-------------|------------|--------------------|
| Peak Pulse Power Dissipation with a 10/1000 $\mu$ s Waveform(Note 1)                         | $P_{PPM}$   | 500(min)   | Watts              |
| Steady State Power Dissipation @ $T_L=75^{\circ}\text{C}$ with lead lengths or 0.375"(9.5mm) | $P_{M(AV)}$ | 3          | Watts              |
| Peak Pulse Power Surge Current with a 10/1000 $\mu$ s Waveform(Note 2, FIG.3)                | $I_{PPM}$   | See Table1 | Amps               |
| Junction Temperature                                                                         | $T_J$       | -55 to 175 | $^{\circ}\text{C}$ |
| Storage Temperature Range                                                                    | $T_{STG}$   | -55 to 175 | $^{\circ}\text{C}$ |

NOTE: 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

## 500W Low Capacitance Transient Voltage Suppressor

DO-15



| DIMENSIONS |        |       |       |      |      |
|------------|--------|-------|-------|------|------|
| DIM        | INCHES |       | MM    |      | NOTE |
|            | MIN    | MAX   | MIN   | MAX  |      |
| A          | 0.230  | 0.300 | 5.80  | 7.60 |      |
| B          | 0.104  | 0.140 | 2.60  | 3.60 |      |
| C          | 0.026  | 0.034 | 0.71  | 0.86 |      |
| D          | 1.000  | ----  | 25.40 | ---- |      |

**ELECTRICAL CHARACTERISTICS @25°C**

| MCC<br>PART<br>NUMBER | STAND-OFF<br>VOLTAGE<br>(NOTE 1)<br>$V_{WM}$<br><br>V | MINIMUM<br>BREAKDOWN<br>VOLTAGE<br>AT $I_T=1.0\text{Ma}$<br>$V_{(BR)}$<br><br>V | MAXIMUM<br>REVERSE<br>LEAKAGE<br>AT $V_{WM}$<br>IR<br><br>$\mu\text{A}$ | MAXIMUM<br>CLAMPING<br>VOLTAGE<br>AT $I_{PP}=5.0\text{A}$<br>$V_C$<br><br>V | MAXIMUM<br>PEAK<br>PULSE<br>CURRENT<br>PER FIG.3<br>$I_{PP}$<br>Amps | MAXIMUM<br>JUNCTION<br>CAPACITAN<br>CE AT 0<br>VOLTS<br><br>pF | WORKING<br>INVERSE<br>BLOCKING<br>VOLTAGE<br>$V_{WIB}$<br><br>V | PEAK<br>INVERSE<br>BLOCKING<br>VOLTAGE<br>$V_{PIB}$<br><br>V |
|-----------------------|-------------------------------------------------------|---------------------------------------------------------------------------------|-------------------------------------------------------------------------|-----------------------------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------------|-----------------------------------------------------------------|--------------------------------------------------------------|
| SAC5.0                | 5.0                                                   | 7.60                                                                            | 300                                                                     | 10.0                                                                        | 44.0                                                                 | 50                                                             | 75                                                              | 100                                                          |
| SAC6.0                | 6.0                                                   | 7.90                                                                            | 300                                                                     | 11.2                                                                        | 41.0                                                                 | 50                                                             | 75                                                              | 100                                                          |
| SAC7.0                | 7.0                                                   | 8.33                                                                            | 300                                                                     | 12.6                                                                        | 38.0                                                                 | 50                                                             | 75                                                              | 100                                                          |
| SAC8.0                | 8.0                                                   | 8.89                                                                            | 100                                                                     | 13.4                                                                        | 36.0                                                                 | 50                                                             | 75                                                              | 100                                                          |
| SAC8.5                | 8.5                                                   | 9.44                                                                            | 50                                                                      | 14.0                                                                        | 34.0                                                                 | 50                                                             | 75                                                              | 100                                                          |
| SAC10                 | 10.0                                                  | 11.10                                                                           | 5                                                                       | 16.3                                                                        | 29.0                                                                 | 50                                                             | 75                                                              | 100                                                          |
| SAC12                 | 12.0                                                  | 13.30                                                                           | 5                                                                       | 19.0                                                                        | 25.0                                                                 | 50                                                             | 75                                                              | 100                                                          |
| SAC15                 | 15.0                                                  | 16.70                                                                           | 5                                                                       | 23.6                                                                        | 20.0                                                                 | 50                                                             | 75                                                              | 100                                                          |
| SAC18                 | 18.0                                                  | 20.00                                                                           | 5                                                                       | 28.8                                                                        | 15.0                                                                 | 50                                                             | 75                                                              | 100                                                          |
| SAC22                 | 22.0                                                  | 24.40                                                                           | 5                                                                       | 35.4                                                                        | 14.0                                                                 | 50                                                             | 75                                                              | 100                                                          |
| SAC26                 | 26.0                                                  | 28.90                                                                           | 5                                                                       | 42.3                                                                        | 11.1                                                                 | 50                                                             | 75                                                              | 100                                                          |
| SAC30                 | 30.0                                                  | 33.30                                                                           | 5                                                                       | 48.6                                                                        | 10.0                                                                 | 50                                                             | 75                                                              | 100                                                          |
| SAC36                 | 36.0                                                  | 40.00                                                                           | 5                                                                       | 60.0                                                                        | 8.6                                                                  | 50                                                             | 75                                                              | 100                                                          |
| SAC45                 | 45.0                                                  | 50.00                                                                           | 5                                                                       | 77.0                                                                        | 6.8                                                                  | 50                                                             | 150                                                             | 200                                                          |
| SAC50                 | 50.0                                                  | 55.50                                                                           | 5                                                                       | 88.0                                                                        | 5.8                                                                  | 50                                                             | 150                                                             | 200                                                          |

NOTE:

- 1) Non-repetitive current pulse, per Fig.3 and derated above  
 $T_A=25^\circ\text{C}$ , per Fig.2

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

Fig.1 - Peak Pulse Power Rating Curve

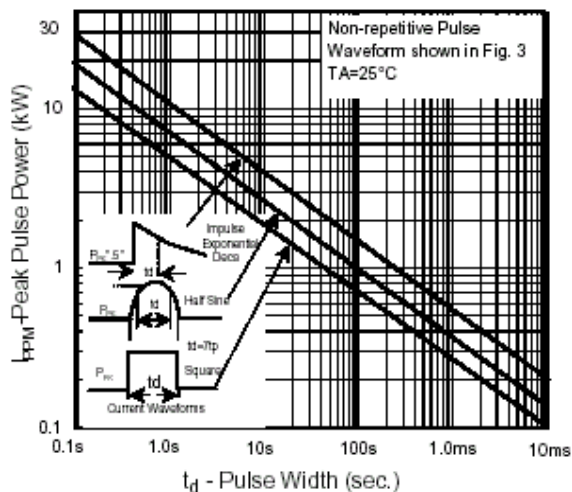


Fig.2-Power Derating Curve

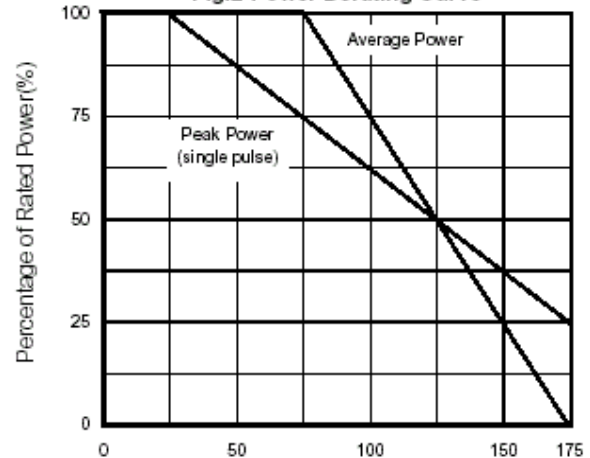


Fig.3 - Pulse Waveform

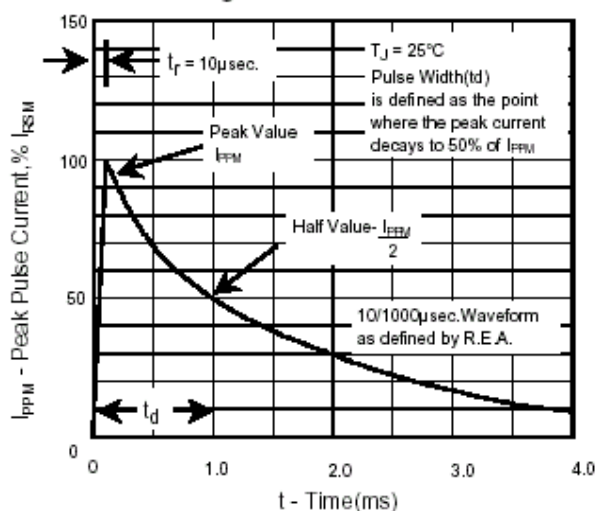
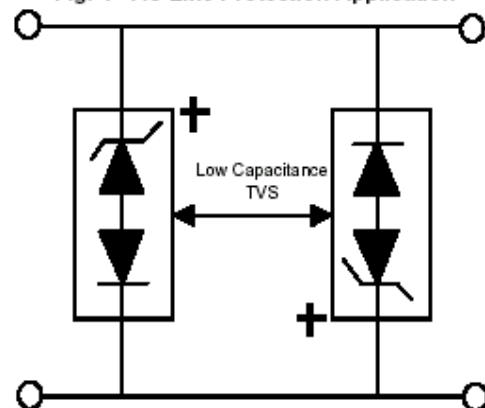


Fig. 4 - AC Line Protection Application



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

## Ordering Information :

| Device         | Packing                      |
|----------------|------------------------------|
| Part Number-TP | Tape&Reel: 4Kpcs/Reel        |
| Part Number-AP | Ammo Packing: 3Kpcs/Ammo Box |
| Part Number-BP | Bulk: 25Kpcs/Carton          |

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

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