

## Axial lead diode

## Standard silicon rectifier diodes

### P 1000 A....P 1000 S

Forward Current: 10 A

Reverse Voltage: 50 to 1200 V

### Features

- Max. solder temperature: 260°C
- Plastic material has UL classification 94V-0

### Mechanical Data

- Plastic case 8 x 7.5 [mm] / P-600 Style
- Weight approx.: 1.5 g
- Terminals: plated terminals solderable per MIL-STD-750
- Mounting position: any
- Standard packaging: 500 pieces per ammo

1) Valid, if leads are kept at ambient temperature at a distance of 10 mm from case

2)  $I_F = 5A$ ,  $T_j = 25^\circ C$

3)  $T_A = 25^\circ C$

| Type     | Repetitive peak reverse voltage<br>$V_{RRM}$<br>V | Surge peak reverse voltage<br>$V_{RSM}$<br>V | Max. reverse recovery time<br>$I_F = -A$<br>$I_R = -A$<br>$I_{RR} = -A$<br>$t_{rr}$<br>ns | Max. forward voltage<br>$V_F^{2)}$ |
|----------|---------------------------------------------------|----------------------------------------------|-------------------------------------------------------------------------------------------|------------------------------------|
| P 1000 A | 50                                                | 50                                           | -                                                                                         | 0,9                                |
| P 1000 B | 100                                               | 100                                          | -                                                                                         | 0,9                                |
| P 1000 D | 200                                               | 200                                          | -                                                                                         | 0,9                                |
| P 1000 G | 400                                               | 400                                          | -                                                                                         | 0,9                                |
| P 1000 J | 600                                               | 600                                          | -                                                                                         | 0,9                                |
| P 1000 K | 800                                               | 800                                          | -                                                                                         | 0,9                                |
| P 1000 M | 1000                                              | 1000                                         | -                                                                                         | 0,9                                |
| P 1000 S | 1200                                              | 1200                                         | -                                                                                         | 0,9                                |

### Absolute Maximum Ratings

$T_c = 25^\circ C$ , unless otherwise specified

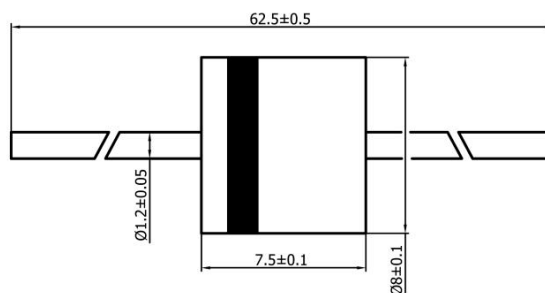
| Symbol    | Conditions                                                | Values     | Units            |
|-----------|-----------------------------------------------------------|------------|------------------|
| $I_{FAV}$ | Max. averaged fwd. current, R-load, $T_A = 50^\circ C$ 1) | 10         | A                |
| $I_{FRM}$ | Repetitive peak forward current $f > 15 Hz$ 1)            | 80         | A                |
| $I_{FSM}$ | Peak forward surge current 50 Hz half sinus-wave 3)       | 400        | A                |
| $i^2t$    | Rating for fusing, $t < 10 ms$ 3)                         | 800        | A <sup>2</sup> s |
| $R_{thA}$ | Max. thermal resistance junction to ambient 1)            | 14         | K/W              |
| $R_{thT}$ | Max. thermal resistance junction to terminals 1)          | -          | K/W              |
| $T_j$     | Operating junction temperature                            | -50...+175 | °C               |
| $T_s$     | Storage temperature                                       | -50...+175 | °C               |

### Characteristics

$T_c = 25^\circ C$ , unless otherwise specified

| Symbol    | Conditions                                                                                                     | Values | Units |
|-----------|----------------------------------------------------------------------------------------------------------------|--------|-------|
| $I_R$     | Maximum leakage current, $T_j = 25^\circ C$ ; $V_R = V_{RRM}$                                                  | <25    | µA    |
|           | $T_j = ^\circ C$ ; $V_R = V_{RRM}$                                                                             |        |       |
| $C_j$     | Typical junction capacitance<br>(at MHz and applied reverse voltage of V)                                      | -      | pF    |
| $Q_{rr}$  | Reverse recovery charge<br>( $U_R = V$ ; $I_F = A$ ; $dI_F/dt = A/ms$ )                                        | -      | µC    |
| $E_{RSM}$ | Non repetitive peak reverse avalanche energy<br>( $I_R = mA$ ; $T_j = ^\circ C$ ; inductive load switched off) | -      | mJ    |

Dimensions in mm



case: 8 x 7,5 [mm]

