



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 V_{RRM} V | Surge peak reverse voltage V_{RSM} V | Max. reverse recovery time $I_F = -A$ $I_R = -A$ $I_{RR} = -A$ t_{rr} ns | Max. forward voltage $V_F^{2)}$ |
|----------|---|--|---|------------------------------------|
| 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 ² 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 (at MHz and applied reverse voltage of V) | - | pF |
| Q_{rr} | Reverse recovery charge ($U_R = V$; $I_F = A$; $di_F/dt = A/ms$) | - | µC |
| E_{RSM} | Non repetitive peak reverse avalanche energy ($I_R = mA$; $T_j = ^\circ C$; inductive load switched off) | - | mJ |



