



## 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 10 mm from case
- 2)  $I_F = 5A$ ,  $T_J = 25^\circ C$
- 3)  $T_A = 25^\circ C$
- 4)  $T_L$  - Lead Temperature [ $^\circ C$ ]
- 5)  $I_{FAV} = 18A$ ; Conditions : R-load,  $T_L = 50^\circ C$ , leads are kept at  $T_L$  at a distance 3mm from case

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

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

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

### Characteristics

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

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

