

## Axial lead diode

## Fast silicon rectifier diodes

### MR 820...MR 828

**Forward Current: 5 A**

**Reverse Voltage: 50 to 1000 V**

### Features

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

### Mechanical Data

- Plastic case 8 x 7,5 [mm]
- 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)  $I_F = 5 \text{ A}$ ,  $T_j = 25^\circ\text{C}$

3)  $T_A = 25^\circ\text{C}$

Type	Repetitive peak reverse voltage $V_{RRM}$ V	Surge peak reverse voltage $V_{RSM}$ V	Max. reverse recovery time $I_F = 0,5 \text{ A}$ $I_R = 1 \text{ A}$ $I_{RR} = 0,25 \text{ A}$ $t_{rr}$ ns	Max. forward voltage $V_F^{2)}$
MR 820	50	50	300	1,2
MR 821	100	100	300	1,2
MR 822	200	200	300	1,2
MR 824	400	400	300	1,2
MR 826	600	600	300	1,2
MR 828	800	800	300	1,2

### Absolute Maximum Ratings

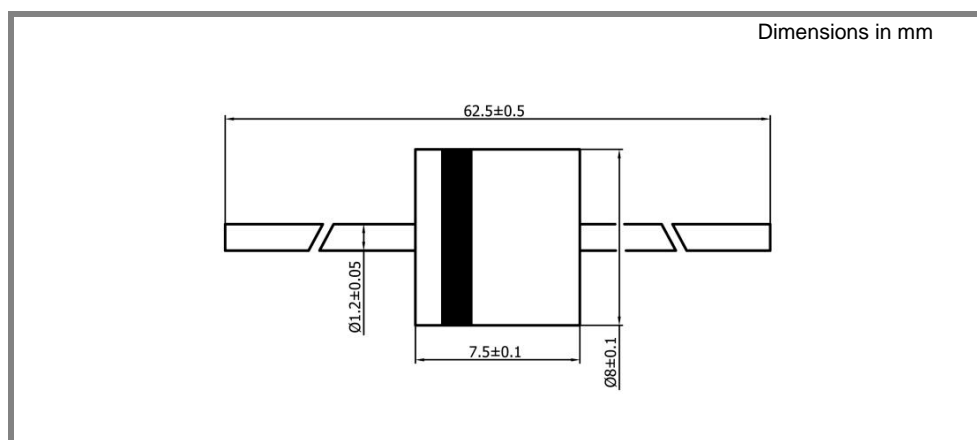
$T_c = 25^\circ\text{C}$ , unless otherwise specified

Symbol	Conditions	Values	Units
$I_{FAV}$	Max. averaged fwd. current, R-load, $T_A = 50^\circ\text{C}^1)$	5	A
$I_{FRM}$	Repetitive peak forward current $f > 15 \text{ Hz}^1)$	60	A
$I_{FSM}$	Peak forward surge current 50 Hz half sinus-wave <sup>3)</sup>	300	A
$i^2t$	Rating for fusing, $t < 10 \text{ ms}^3)$	450	A <sup>2</sup> s
$R_{thA}$	Max. thermal resistance junction to ambient <sup>1)</sup>	20	K/W
$R_{thT}$	Max. thermal resistance junction to terminals <sup>1)</sup>	-	K/W
$T_j$	Operating junction temperature	-50...+150	°C
$T_s$	Storage temperature	-50...+175	°C

### Characteristics

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

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



case: 8 x 7,5 [mm]

