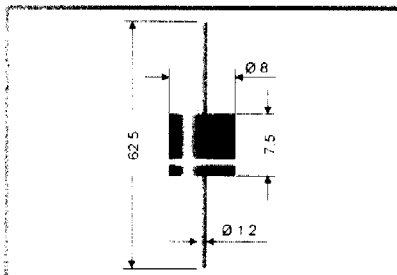


MR 820...MR 828



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	Surge peak reverse voltage	Max. reverse recovery time	Max. forward voltage
	V_{RRM} V	V_{RSM} V	$I_F = 0,5 \text{ A}$ $I_R = 1 \text{ A}$ $I_{RR} = 0,25 \text{ A}$ t_{rr} ns	$V_F^{2)}$
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 Tc = 25 °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 ³⁾	300	A
i^2t	Rating for fusing, $t < 10 \text{ ms}^{3)}$	450	A ² s
R_{thA}	Max. thermal resistance junction to ambient ¹⁾	20	K/W
R_{thT}	Max. thermal resistance junction to terminals ¹⁾	-	K/W
T_J	Operating junction temperature	-50...+150	°C
T_S	Storage temperature	-50...+175	°C

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

