

## Axial lead diode

### Fast silicon rectifier diodes

BA 157...BA 159

Forward Current: 1 A

Reverse Voltage: 400 to 1000 V

#### Features

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

#### Mechanical Data

- Plastic case DO-41 / DO-204AL
- Weight approx.: 0.4 g
- Terminals: plated terminals solderable per MIL-STD-750
- Mounting position: any
- Standard packaging: 5000 pieces per ammo

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

2)  $I_F = 1 \text{ A}$ ,  $T_j = 25 \text{ °C}$

3)  $T_A = 25 \text{ °C}$

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 $V_F^{2)}$
BA 157	400	400	300	1,3
BA 158	600	600	300	1,3
BA 159	1000	1000	300	1,3

#### Absolute Maximum Ratings

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

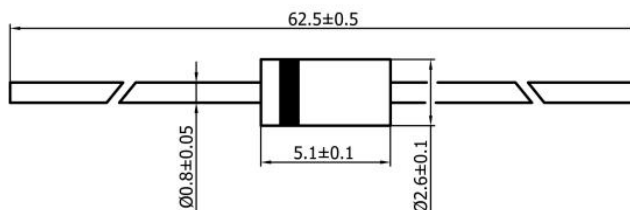
Symbol	Conditions	Values	Units
$I_{FAV}$	Max. averaged fwd. current, R-load, $T_A = 50 \text{ °C}^{1)}$	1	A
$I_{FRM}$	Repetitive peak forward current $f > 15 \text{ Hz}^{1)}$	10	A
$I_{FSM}$	Peak forward surge current 50 Hz half sinus-wave $^{3)}$	35	A
$i^2t$	Rating for fusing, $t < 10 \text{ ms}^{3)}$	6	A <sup>2</sup> s
$R_{thA}$	Max. thermal resistance junction to ambient $^{1)}$	45	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

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

Symbol	Conditions	Values	Units
$I_R$	Maximum leakage current, $T_j = 25 \text{ °C}$ ; $V_R = V_{RRM}$	<5	μA
	$T_j = 125 \text{ °C}$ ; $V_R = V_{RRM}$	<100	μA
$C_j$	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 ( $I_R = \text{mA}$ ; $T_j = \text{°C}$ ; inductive load switched off)	-	mJ

Dimensions in mm



case: DO-41 / DO-204AL

