



## Axial lead diode

High voltage silicon rectifier diodes

BY4, BY6

Forward Current: 1 A

Reverse Voltage: 4000 to 6000 V

## Features

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

## Mechanical Data

- Plastic case 6,3 x 21 [mm]
- Weight approx.: 1,9 g
- Terminals: plated terminals solderable per MIL-STD-750
- Mounting position: any
- Standard packaging: 100 pieces per ammo

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

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

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 $I_F = -A$ $I_R = -A$ $I_{RR} = -A$ $t_{rr}$ ns	Max. forward voltage $V_F^2)$
BY 4	4000	4000	-	4,0
BY 6	6000	6000	-	6,0

Absolute Maximum Ratings		$T_c = 25^\circ\text{C}$ , unless otherwise specified	
Symbol	Conditions	Values	Units
$I_{FAV}$	Max. averaged fwd. current, R-load, $T_A = 25^\circ\text{C}$ <sup>1)</sup>	1	A
$I_{FRM}$	Repetitive peak forward current $f > \text{Hz}^1)$		A
$I_{FSM}$	Peak forward surge current 50 Hz half sinus-wave <sup>3)</sup>	100	A
$i^2t$	Rating for fusing, $t < \text{ms}$ <sup>3)</sup>		A <sup>2</sup> s
$R_{thA}$	Max. thermal resistance junction to ambient <sup>1)</sup>	25	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...+150	°C

Characteristics		$T_c = 25^\circ\text{C}$ , unless otherwise specified	
Symbol	Conditions	Values	Units
$I_R$	Maximum leakage current, $T_j = 25^\circ\text{C}$ ; $V_R = V_{RRM}$	<1	µA
	$T_j = 100^\circ\text{C}$ ; $V_R = V_{RRM}$	<25	µA
$C_J$	Typical junction capacitance (at MHz and applied reverse voltage of V)	-	pF
$Q_{rr}$	Reverse recovery charge ( $U_R = V$ ; $I_F = A$ ; $dI_F/dt = A/\text{ms}$ )	-	µC
$E_{RSM}$	Non repetitive peak reverse avalanche energy ( $I_R = \text{mA}$ ; $T_j = {}^\circ\text{C}$ ; inductive load switched off)	-	mJ



