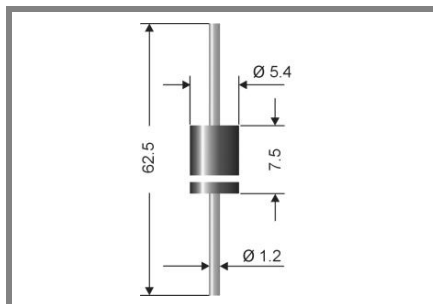


# BY 500-50...BY 500-1000



## Axial lead diode

### Fast silicon rectifier diodes

BY 500-50...BY 500-1000

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 5.4 x 7.5 [mm]
- Weight approx.: 1.4 g
- Terminals: plated terminals solderable per MIL-STD-750
- Mounting position: any
- Standard packaging: 1250 pieces per ammo

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

2)  $I_F = 5A$ ,  $T_j = 25^\circ C$

3)  $T_A = 25^\circ C$

Type	Repetitive peak reverse voltage $V_{RRM}$ V	Surge peak reverse voltage $V_{RSM}$ V	Max. reverse recovery time $I_F = 0,5 A$ $I_R = 1 A$ $I_{RR} = 0,25 A$ $t_{rr}$ ns	Max. forward voltage $V_F^{2)}$
BY 500-50	50	50	200	1,3
BY 500-100	100	100	200	1,3
BY 500-200	200	200	200	1,3
BY 500-400	400	400	200	1,3
BY 500-600	600	600	200	1,3
BY 500-800	800	800	200	1,3
BY 500-1000	1000	1000	200	1,3

### Absolute Maximum Ratings

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

Symbol	Conditions	Values	Units
$I_{FAV}$	Max. averaged fwd. current, R-load, $T_A = 50^\circ C$ <sup>1)</sup>	5	A
$I_{FRM}$	Repetitive peak forward current $f > 15 Hz$ <sup>1)</sup>	20	A
$I_{FSM}$	Peak forward surge current 50 Hz half sinus-wave <sup>3)</sup>	200	A
$i^2t$	Rating for fusing, $t < 10 ms$ <sup>3)</sup>	200	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...+175	°C
$T_s$	Storage temperature	-50...+175	°C

### Characteristics

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

Symbol	Conditions	Values	Units
$I_R$	Maximum leakage current, $T_j = 25^\circ C$ ; $V_R = V_{RRM}$	<10	µA
	$T_j = ^\circ C$ ; $V_R = V_{RRM}$		
$C_J$	Typical junction capacitance (at MHz and applied reverse voltage of V)	-	pF
$Q_{rr}$	Reverse recovery charge ( $U_R = V$ ; $I_F = A$ ; $dI_F/dt = A/ms$ )	-	µC
$E_{RSM}$	Non repetitive peak reverse avalanche energy ( $I_R = mA$ ; $T_j = ^\circ C$ ; inductive load switched off)	-	mJ

