BY 396...BY 399

Axial lead diode

Type	Repetitive peak reverse voltage	Surge peak reverse voltage	Max. reverse recovery time $I_F = 0,5$ A $I_R = 1$ A $I_{RR} = 0,25$ A	Max. forward voltage
	V_{RRM} V	V_{RSM} V	t_{rr} ns	V_F [2]
BY 396	100	100	500	1,2
BY 397	200	200	500	1,2
BY 398	400	400	500	1,2
BY 399	800	800	500	1,2

Fast silicon rectifier diodes

BY 396...BY 399

Forward Current: 3 A

Reverse Voltage: 100 to 800 V

Features

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

Mechanical Data

- Plastic case DO-201
- Weight approx.: 1 g
- Terminals: plated terminals solderable per MIL-STD-750
- Mounting position: any
- Standard packaging: 1700 pieces per ammo

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

2) I_F=3A, T_j=25°C

3) T_A = 25 °C

Absolute Maximum Ratings		Tc = 25°C, unless otherwise specified	
Symbol	**Conditions**	**Values**	**Units**
I_{FAV}	Max. averaged fwd. current, R-load, T_A = 50 °C [1]	3	A
I_{FRM}	Repetitive peak forward current f > 15 Hz[1]	20	A
I_{FSM}	Peak forward surge current 50 Hz half sinus-wave [3]	100	A
i^2t	Rating for fusing, t < 10 ms [3]	50	A²s
R_{thA}	Max. thermal resistance junction to ambient [1]	25	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 °C; $V_R = V_{RRM}$	<10	µA
	T_j = °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 = °C; inductive load switched off)	-	mJ

Dimensions in mm

62.5±0.5

Ø1.2±0.05

7.5±0.1

Ø4.5±0.1

case: DO-201

01-04-2004 SCT

Fig. 1 Forward characteristic (typical values)

Fig. 2 Rated forward current vs. ambient temperature [1])

Fig. 3 Pulse thermal resistance vs. pulse duration [1])