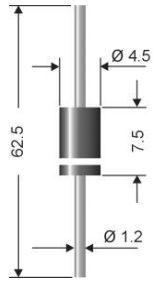
BY 296...BY 299



Axial lead diode

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 296	100	100	500	1,3
BY 297	200	200	500	1,3
BY 298	400	400	500	1,3
BY 299	800	800	500	1,3

Fast silicon rectifier diodes

BY 296...BY 299

Forward Current: 2 A

Reverse Voltage: 100 to 800 V

Features

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

Mechanical Data

- Plastic case DO201
- 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 = 3 A, T_j = 25 °C
3) T_A = 25 °C

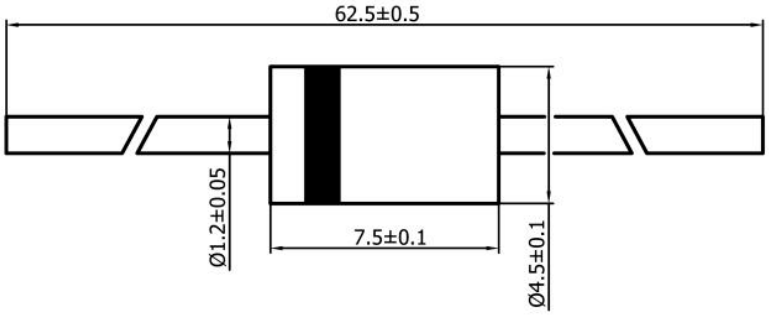
Absolute Maximum Ratings Tc = 25 °C, unless otherwise specified

Symbol	Conditions	Values	Units
I_{FAV}	Max. averaged fwd. current, R-load, T_A = 50 °C [1]	2	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]	70	A
i²t	Rating for fusing, t < 10 ms [3]	24	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



case: DO-201

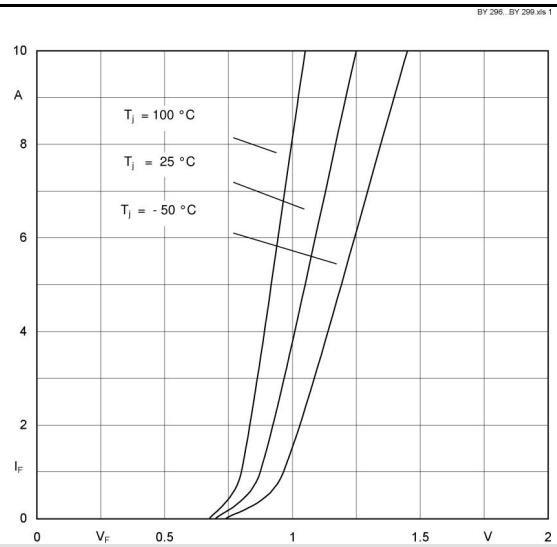


Fig. 1 Forward characteristic (typical values)

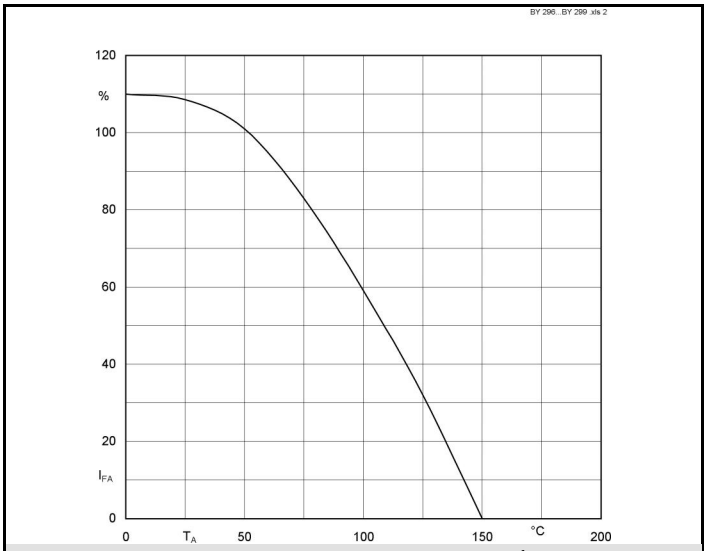


Fig. 2 Rated forward current vs. ambient temperature [1])

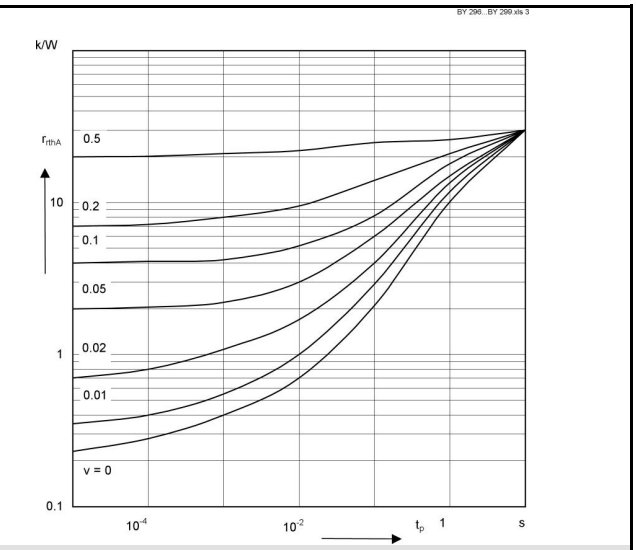


Fig. 3 Pulse thermal resistance vs. pulse duration [1])

