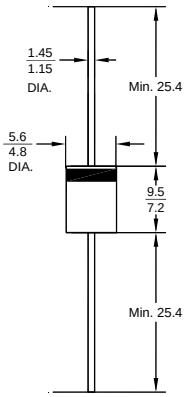
BY296 THRU BY299

FAST RECOVERY RECTIFIERS
Reverse Voltage – 100 to 800 V
Forward Current – 2 A

Features
- Low forward voltage drop
- Low cost
- Low leakage
- High current capability

DO-201AD



Dimensions in mm

Mechanical Data
- **Case:** DO-201AD, Molded plastic
- **Terminals:** Axial leads, solderable per MIL-STD -202, method 208 guaranteed
- **Polarity:** Color band denotes cathode

Absolute Maximum Ratings and Characteristics
Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter	Symbols	BY296	BY297	BY298	BY299	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	100	200	400	800	V
Maximum RMS Voltage	V_{RMS}	70	140	280	560	V
Maximum DC Blocking Voltage	V_{DC}	100	200	400	800	V
Maximum Average Forward Rectified Current 0.375"(9.5 mm) lead length at T_A = 75 °C	$I_{F(AV)}$	2				A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load at T_J = 125 °C	I_{FSM}	70				A
Maximum Forward Voltage at 2 A	V_F	1.3				V
Maximum Reverse Current at T_A = 25 °C at Rated DC Blocking Voltage at T_A = 100 °C	I_R	10 100				µA
Maximum Reverse Recovery Time [1]	t_{rr}	500				ns
Typical Junction Capacitance [2]	C_J	32				pF
Typical Thermal Resistance [3]	$R_{\theta JA}$	22				°C/W
Operating and Storage Temperature Range	T_J , T_{Stg}	- 55 to + 150				°C

[1] Measured with I_F = 0.5 A, I_R = 1 A, I_{rr} = 0.25 A.
[2] Measured at 1 MHz and applied reverse voltage of 4V D.C.
[3] Thermal resistance from junction to ambient at 0.375" (9.5 mm) lead length.

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FIG.1 – FORWARD CURRENT DERATING CURVE

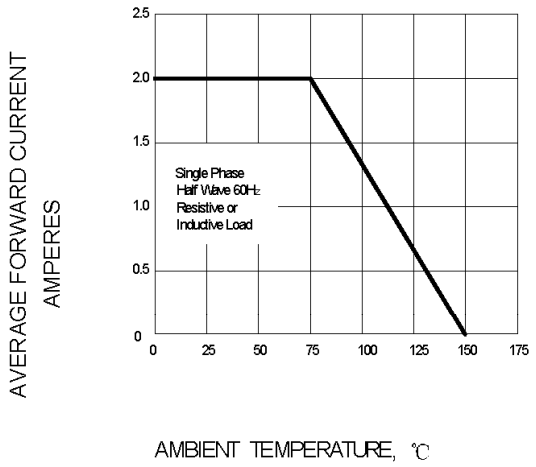

FIG.2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

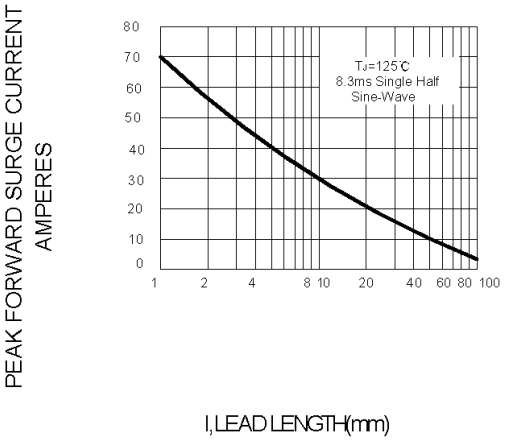

FIG.3 – TYPICAL JUNCTION CAPACITANCE

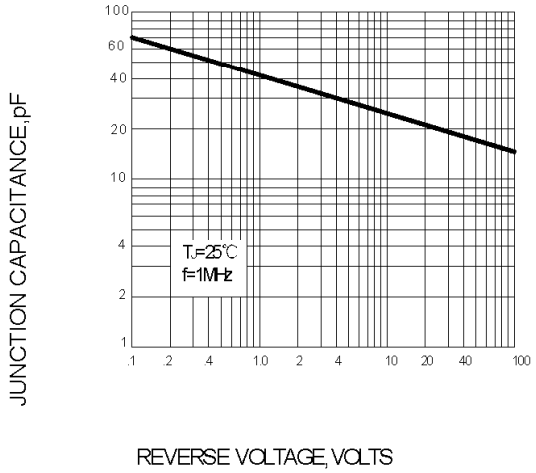

FIG.4 – TYPICAL FORWARD CHARACTERISTICS