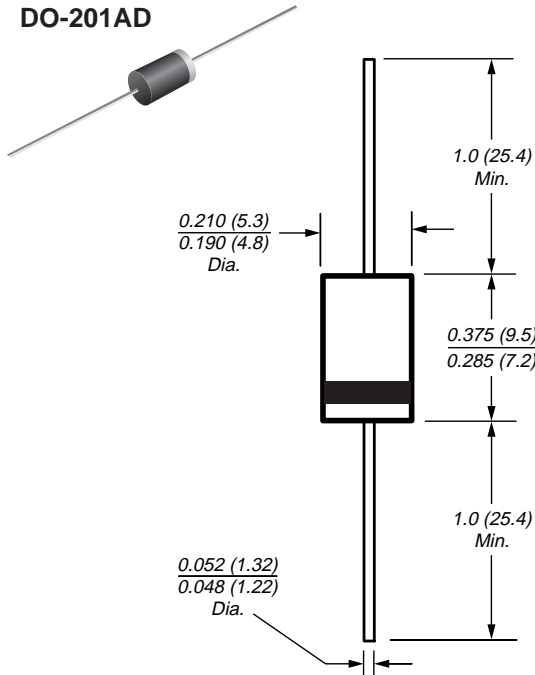


General Purpose Rectifiers

Reverse Voltage
200 to 1300V
Forward Current 3.0A

DO-201AD


Dimensions in inches and (millimeters)

Features

- Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- High surge current capability
- Typical I_R less than $0.1 \mu A$
- Construction utilizes void-free molded plastic technique
- 3.0 Ampere operation at $T_A = 55^\circ C$ with no thermal runaway
- High temperature soldering guaranteed: $250^\circ C/10$ seconds, $0.375"$ (9.5 mm) lead length 5 lbs. (2.3 kg) tension

Mechanical Data

Case: JEDEC DO-201AD, molded plastic body

Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.04 oz., 1.12 g

Maximum Ratings & Thermal Characteristics Ratings at $25^\circ C$ ambient temperature unless otherwise specified.

Parameter	Symbol	BY251P	BY252P	BY253P	BY254P	BY255P	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	200	400	600	800	1300	V
Maximum RMS voltage	V_{RMS}	140	280	420	560	910	V
Maximum DC blocking voltage	V_{DC}	200	400	600	800	1300	V
Maximum average forward rectified current 10mm lead length at $T_A = 55^\circ C$	$I_{F(AV)}$	3.0					A
Peak forward surge current 10ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150					A
Maximum full load reverse current, full cycle average 10mm lead length at $T_A = 55^\circ C$	$I_{R(AV)}$	100					μA
Typical thermal resistance ⁽¹⁾	$R_{\theta JA}$ $R_{\theta JL}$	20 10					$^\circ C/W$
Operating junction and storage temperature range	T_J, T_{STG}	-65 to +150					$^\circ C$

Electrical Characteristics Ratings at $25^\circ C$ ambient temperature unless otherwise specified.

Maximum instantaneous forward voltage at 3.0A	V_F	1.1					V
Maximum reverse current at rated DC blocking voltage $T_A = 25^\circ C$	I_R	5.0					μA
Typical reverse recovery time $I_F = 0.5A, I_R = 1.0V, I_{rr} = 0.25A$	t_{rr}	3.0					μs
Typical junction capacitance at 4.0V, 1MHz	C_J	40					pF

Note: (1) Thermal resistance from junction to ambient and from junction to lead at $0.375"$ (9.5mm) lead length, P.C.B. mounted

Ratings and Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Fig 1 - Forward Current Derating Curve

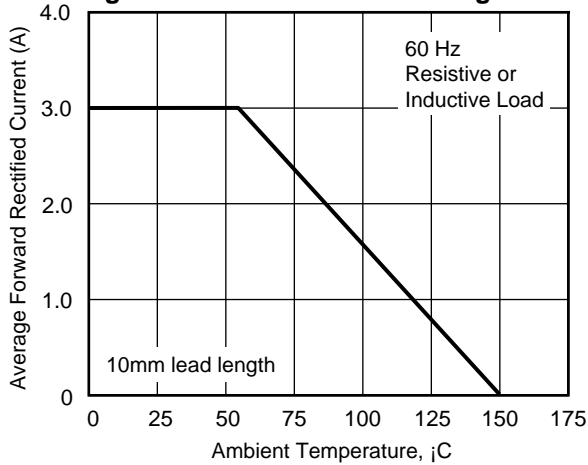


Fig 2 - Maximum Non-repetitive Peak Forward Surge Current

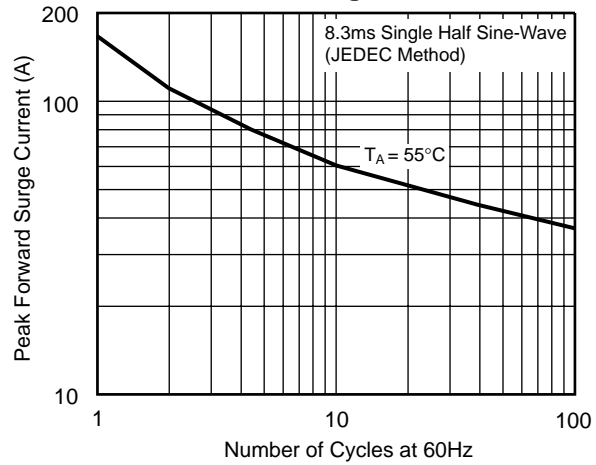


Fig 3 - Typical Instantaneous Forward Characteristics

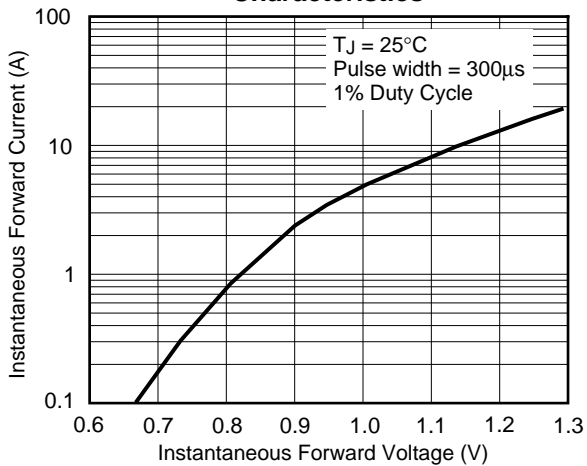


Fig 2 - Maximum Non-repetitive Peak Forward Surge Current

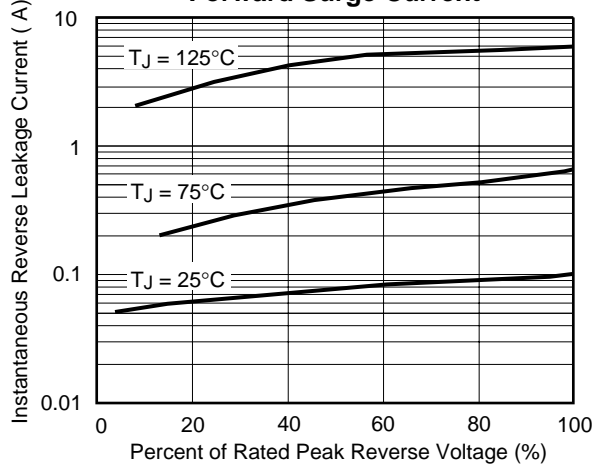


Fig 5 - Typical Junction Capacitance

