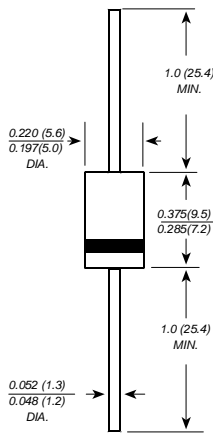


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**BY251 THRU BY255**  
**GENERAL PURPOSE SILICON RECTIFIER**

**Reverse Voltage - 200 to 1300 Volts Forward Current - 3.0 Ampere**

**DO-201AD**



Dimensions in inches and (millimeters)

**FEATURES**

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Construction utilizes void-free molded plastic technique
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed:  
250°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) 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 ounce, 1.10 grams

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

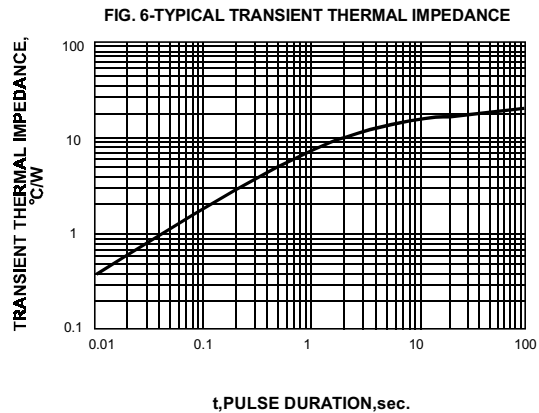
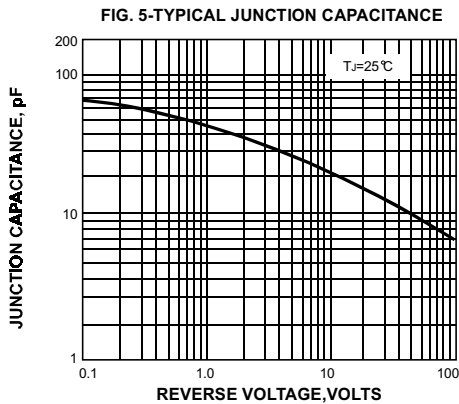
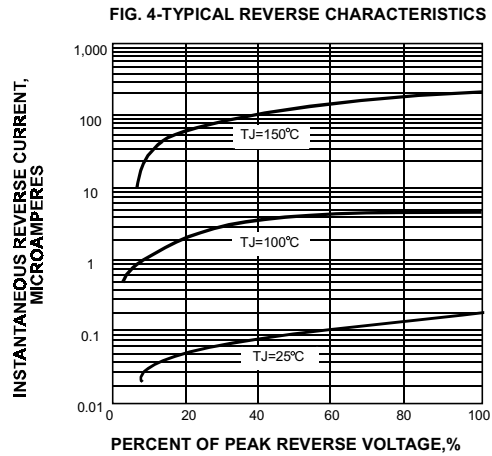
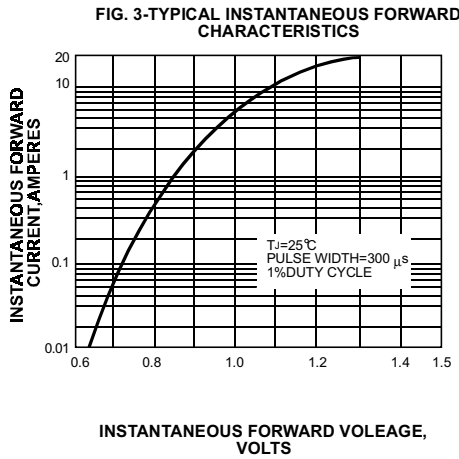
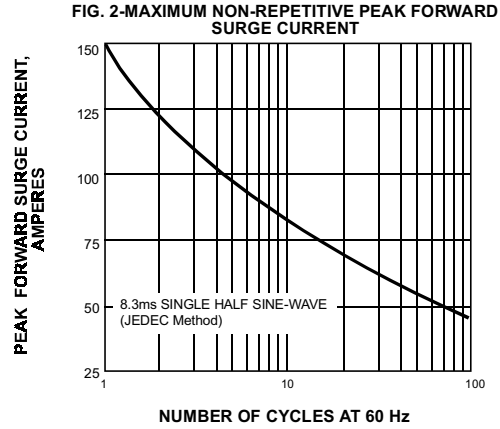
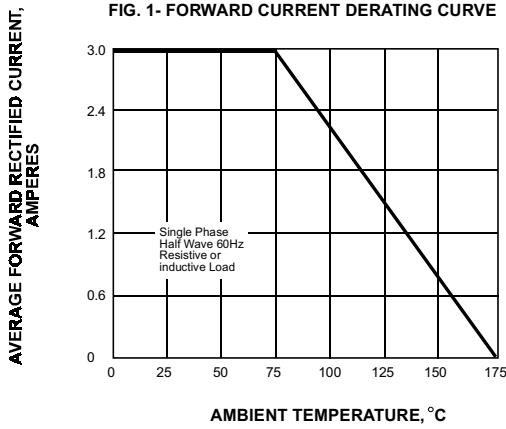
Ratings at 25°C ambient temperature unless otherwise specified.  
 Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

	SYMBOLS	BY251	BY252	BY253	BY254	BY255	UNITS
Maximum repetitive peak reverse voltage	$V_{RRM}$	200	400	600	800	1300	VOLTS
Maximum RMS voltage	$V_{RMS}$	140	280	420	560	910	VOLTS
Maximum DC blocking voltage	$V_{DC}$	200	400	600	800	1300	VOLTS
Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A=75^\circ\text{C}$	$I_{(AV)}$	3.0					Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	150					Amps
Maximum instantaneous forward voltage at 3.0A	$V_F$	1.1					Volts
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=100^\circ\text{C}$	$I_R$	10.0 500					$\mu\text{A}$
Typical junction capacitance (NOTE 1)	$C_J$	30.0					pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	20.0					$^\circ\text{C/W}$
Operating junction and storage temperature range	$T_J, T_{STG}$	-65 to +175					$^\circ\text{C}$

**Note:** 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.  
 2. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

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**RATINGS AND CHARACTERISTIC CURVES BY251 THRU BY255**



**TECHNICAL DATA**

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