

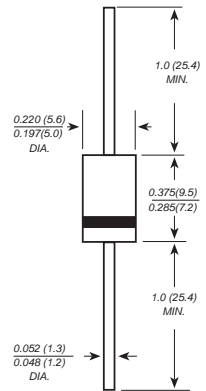
**FEATURES**

- 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

**DO-201AD**



*Dimensions in inches and (millimeters)*

**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 $T_A=75^\circ C$	$I_{(AV)}$	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 $T_A=25^\circ C$ at rated DC blocking voltage $T_A=100^\circ C$	$I_R$	10.0 500					$\mu A$
Typical junction capacitance (NOTE 1)	$C_J$	30.0					pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	20.0					$^\circ C/W$
Operating junction and storage temperature range	$T_J, T_{STG}$	-65 to +175					$^\circ C$

**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



# GENERAL PURPOSE SILICON RECTIFIER

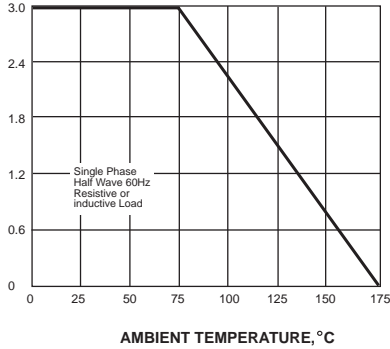
## BY251 THRU BY255

VOLTAGE RANGE  
CURRENT

200 to 1300 Volts  
3.0 Ampere

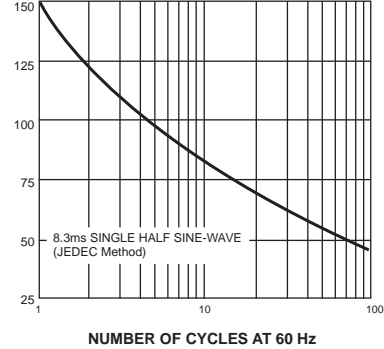
AVERAGE FORWARD RECTIFIED CURRENT,  
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



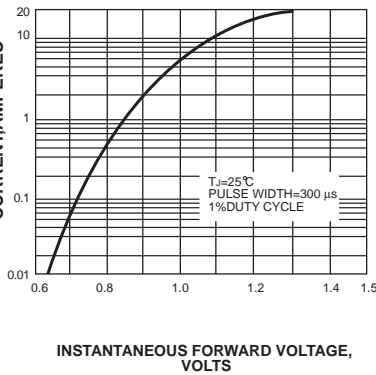
PEAK FORWARD SURGE CURRENT,  
AMPERES

FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



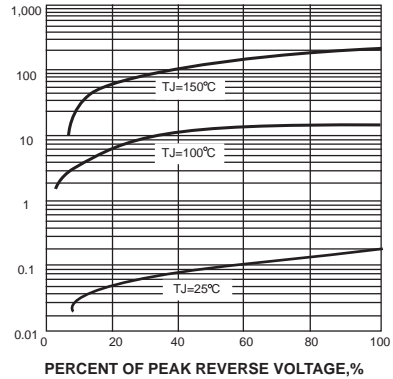
INSTANTANEOUS FORWARD CURRENT, AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



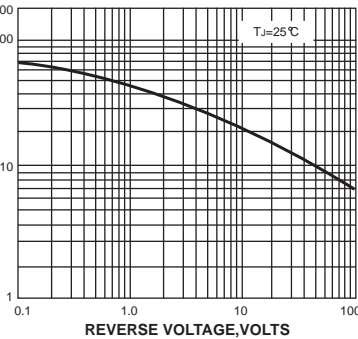
INSTANTANEOUS REVERSE CURRENT,  
MICROAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE,  
°C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

