



# BY251 ~ BY255

## MEDIUM CURRENT PLASTIC RECTIFIER

**VOLTAGE** 200 to 1300 Volts **CURRENT** 3.0 Amperes

**DO-201AD**

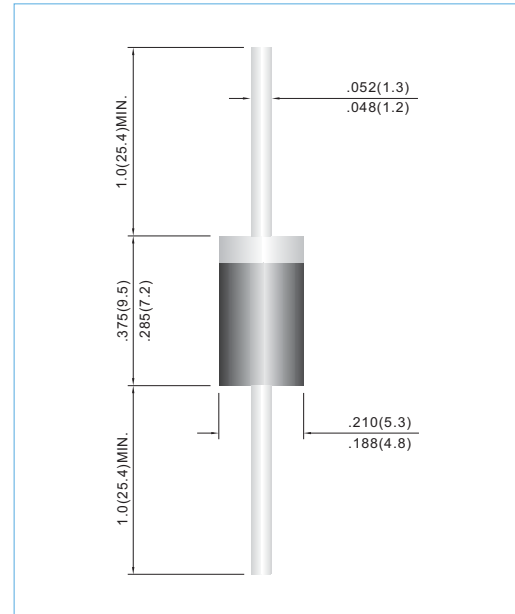
Unit: inch(mm)

### FEATURES

- High current capability.
- Plastic package has Underwriters Laboratories Flammability Classification 94V-O
- Void-free Plastic in DO-201AD package.
- Exceeds environmental standards of MIL-S-19500/228
- Low leakage .
- In compliance with EU RoHS 2002/95/EC directives

### MECHANICAL DATA

- Case: Molded plastic, DO-201AD
- Terminals: Axial leads, solderable to MIL-STD-750, Method 2026
- Polarity: Color Band denotes cathode end
- Mounting Position: Any
- Weight: 0.0395 ounce, 1.122 grams



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.  
Resistive or inductive load, 60Hz.

PARAMETER	SYMBOL	BY251	BY252	BY253	BY254	BY255	UNITS
Maximum Recurrent 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 Current .375"(9.5mm) lead length	$I_{F(AV)}$	3.0					A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	$I_{FSM}$	100					A
Maximum Forward Voltage at 3.0A	$V_F$	1.1					V
Maximum DC Reverse Current at $T_J=25^{\circ}C$ Rated DC Blocking Voltage $T_J=100^{\circ}C$	$I_R$	5.0 1000					$\mu A$
Typical Junction capacitance (Note 1)	$C_J$	40					pF
Typical Thermal Resistance(Note 2)	$R_{\theta JA}$	15					$^{\circ}C / W$
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150					$^{\circ}C$

#### NOTES:

1. Measured at 1 MHz and applied reverse voltage of 4.0 volts.
2. Thermal resistance from junction to ambient.
3. Reverse Recovery Test Conditions:  $I_F=0.5A$  ,  $I_R=1.0A$  ,  $I_{rr}=0.25A$



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## RATING AND CHARACTERISTIC CURVES

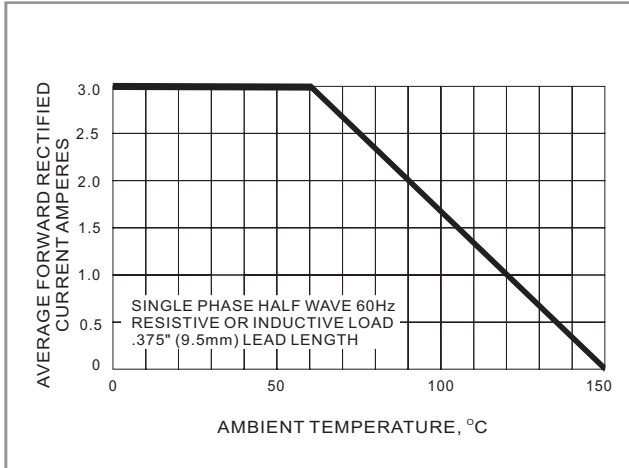


FIG. 1 FORWARD CURRENT DERATING CURVE

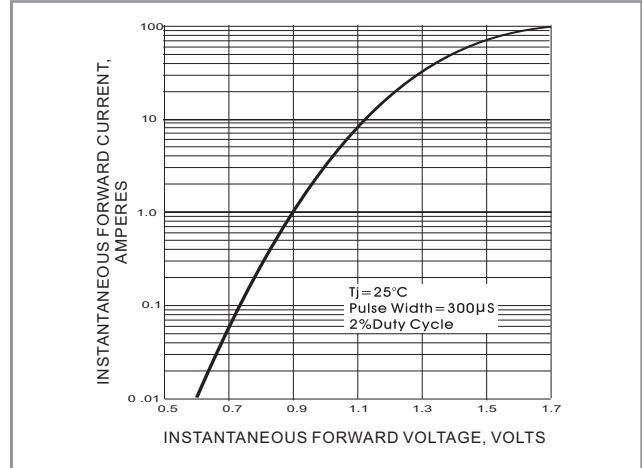


FIG. 2 TYPICAL FORWARD CHARACTERISTICS

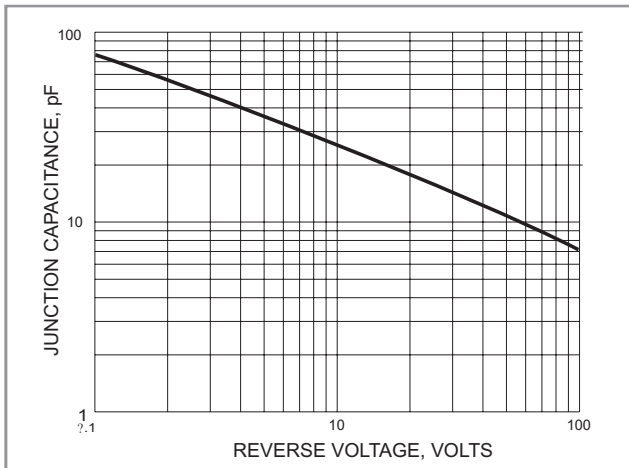


FIG. 3 TYPICAL JUNCTION CAPACITANCE

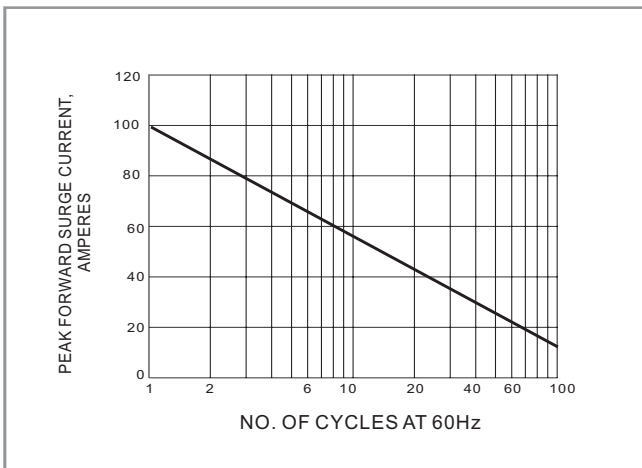


Fig. 4 MAXIMUM NON REPETITIVE PEAK SURGE CURRENT

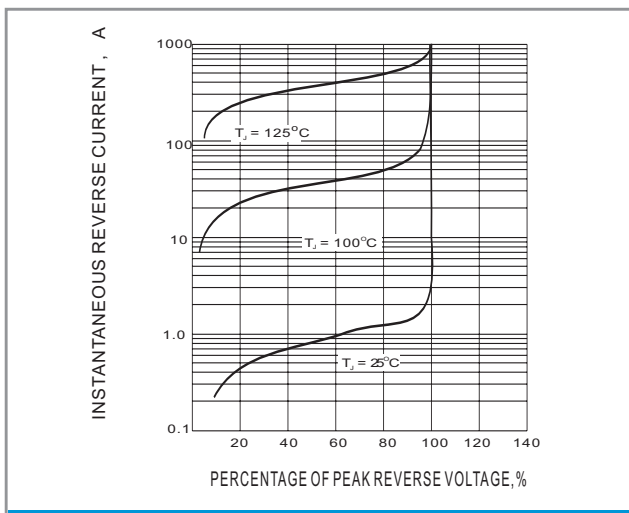


Fig. 5-TYPICAL REVERSE CHARACTERISTIC