

# **BY251** THRU **BY255**

### 3.0 AMPS. Silicon Rectifiers

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Voltage Range 200 to 1300 Volts Current 3.0Amperes

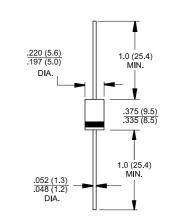
**DO-201AD** 

#### **Features**

- ♦ Low forward voltage drop
- ♦ High current capability
- ♦ High reliability
- ♦ High surge current capability

#### **Mechanical Data**

- ♦ Cases: Molded plastic
- ♦ Epoxy: UL 94V-O rate flame retardant
- ♦ Lead: Axial leads, solderable per MIL-STD-202, Method 208 guaranteed
- ♦ Polarity: Color band denotes cathode end
- High temperature soldering guaranteed: 250°C/10 seconds/.375",(9.5mm) lead lengths at 5 lbs., (2.3kg) tension
- ♦ Weight: 1.2 grams



Dimensions in inches and (millimeters)

## **Maximum Ratings and Electrical 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%

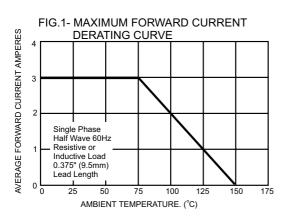
Type Number	BY251	BY252	BY253	BY254	BY255	Units
Maximum Recurrent Peak Reverse Voltage	200	400	600	800	1300	V
Maximum RMS Voltage	140	280	420	560	910	V
Maximum DC Blocking Voltage	200	400	600	800	1300	V
Maximum Average Forward Rectified Current . 375 (9.5mm) Lead Length @T <sub>A</sub> = 75°C	3.0					Α
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	150					Α
Maximum Instantaneous Forward Voltage @ 3.0A	1.0					V
Maximum DC Reverse Current @ T <sub>A</sub> =25°C	5.0					uA
at Rated DC Blocking Voltage @ T <sub>A</sub> =100°C	100					uA
Maximum Full Load Reverse Current, Full Cycle Average .375"(9.5mm) Lead Length @T <sub>L</sub> =75°C	30					uA
Typical Junction Capacitance (Note 1)	50					pF
Typical Thermal Resistance RθJA (Note 2)	18					°C/W
Operating Temperature Range T <sub>J</sub>	-65 to +150					°C
Storage Temperature Range T <sub>STG</sub>	-65 to +150					°C

Notes: 1. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.

2. Thermal Resistance from Junction to Ambient .375" (9.5mm) Lead Length.



#### RATINGS AND CHARACTERISTIC CURVES (BY251 THRU BY255)



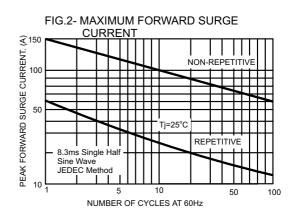


FIG.3- TYPICAL FORWARD CHARACTERISTICS

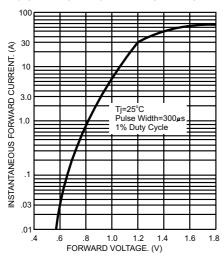


FIG.4- TYPICAL JUNCTION CAPACITANCE

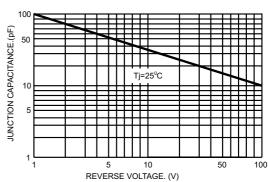


FIG.5- TYPICAL REVERSE CHARACTERISTICS

