

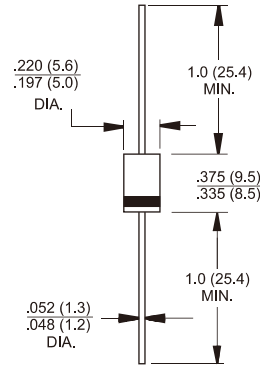
# **BY251 - BY254** 3.0 AMPS. Silicon Rectifiers **DO-201AD**

## **Features**

- ✧ High efficiency, Low VF
- ✧ High current capability
- ✧ High reliability
- ✧ High surge current capability
- ✧ Low power loss
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode.

## **Mechanical Data**

- ✧ Cases: Molded plastic
- ✧ Epoxy: UL 94V-0 rate flame retardant
- ✧ Lead: Pure tin plated, lead free., solderable per MIL-STD-202, Method 208 guaranteed
- ✧ Polarity: Color band denotes cathode
- ✧ High temperature soldering guaranteed: 260°C/10 seconds/.375"(9.5mm) lead lengths at 5 lbs., (2.3kg) tension
- ✧ Weight: 1.2 grams



Dimensions in inches and (millimeters)



Packing Diagram

BY25X = Specific Device Code  
G = Green Compound  
Y = Year  
WW = Work Week

## **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	Symbol	BY251	BY252	BY253	BY254	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	200	400	600	800	V
Maximum RMS Voltage	$V_{RMS}$	140	280	420	560	V
Maximum DC Blocking Voltage	$V_{DC}$	200	400	600	800	V
Maximum Average Forward Rectified Current .375 (9.5mm) Lead Length @ $T_A = 75^\circ C$	$I_{F(AV)}$	3.0				A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method )	$I_{FSM}$	150				A
Maximum Instantaneous Forward Voltage @ 3.0A	$V_F$	1.0				V
Maximum DC Reverse Current at @ $T_A = 25^\circ C$ Rated DC Blocking Voltage (Note 1) @ $T_A = 125^\circ C$	$I_R$	5.0 100				$\mu A$ $\mu A$
Maximum Full Load Reverse Current, Full Cycle Average .375"(9.5mm) Lead Length @ $T_L = 75$	$I_{R(AV)}$	30				$\mu A$
Typical Junction Capacitance ( Note 3 )	$C_j$	40				pF
Typical Thermal Resistance ( Note 2 )	$R_{\theta JA}$	40				$^\circ C/W$
Operating Temperature Range	$T_J$	-65 to +150				$^\circ C$
Storage Temperature Range	$T_{STG}$	-65 to +150				$^\circ C$

Notes: 1. Pulse Test with PW=300 usec, 1% Duty Cycle  
2. Mount on Cu-Pad Size 16mm x 16mm on P.C.B.  
3. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.

## RATINGS AND CHARACTERISTIC CURVES (BY251 THRU BY254)

