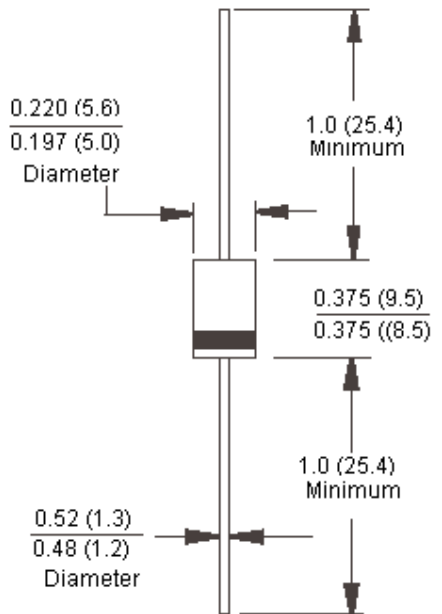




## Features:

- High efficiency, low  $V_F$ .
- High current capability.
- High reliability.
- High surge current capability.
- Low power loss.

## DO-201AD



Dimensions : Inches (Millimetres)

## Mechanical Data:

Cases	: Moulded plastic.
Lead	: Pure tin plated, lead free, solderable per MIL-STD-202, Method 208 guaranteed.
Polarity	: Colour band denotes cathode end.
High temperature soldering guaranteed	: 260°C/10 seconds/0.375 inch, (9.5mm) lead lengths at 5lbs., (2.3kg) tension.
Weight	: 1.2 grams.

## Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

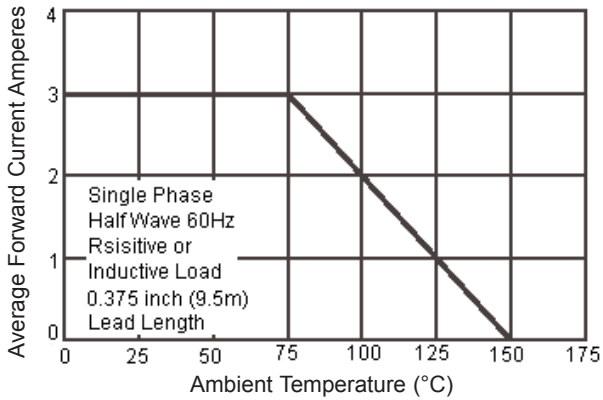
Type Number	Symbol	BY251	BY252	BY253	BY254	BY255	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	200	400	600	800	1300	V
Maximum RMS Voltage	$V_{RMS}$	140	280	420	560	910	
Maximum DC Blocking Voltage	$V_{DC}$	200	400	600	800	1300	
Maximum Average Forward Rectified Current 0.375 (9.5mm) Lead Length at $T_A = 75^\circ\text{C}$	$I_{(AV)}$	3.0					A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method )	$I_{FSM}$	150					
Maximum Instantaneous Forward Voltage at 3.0A	$V_F$	1.0					V
Maximum DC Reverse Current at $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage at $T_A = 125^\circ\text{C}$	$I_R$	5.0 100					$\mu\text{A}$
Maximum Full Load Reverse Current, Full Cycle Average 0.375 inch (9.5mm) Lead Length at $T_L = 75^\circ\text{C}$	$HT_{IR}$	30					$\mu\text{A}$ $\mu\text{A}$
Typical Junction Capacitance (Note 1)	$C_j$	40					pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$						
Operating Temperature Range	$T_J$	-65 to +150					$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$						

Note: 1. Measured at 1MHz and Applied Reverse Voltage of 4.0V dc.

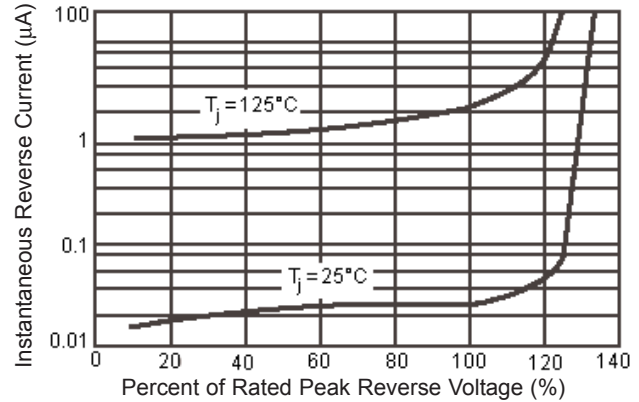
2. Mount on Cu-Pad Size 16mm x 16mm on PCB.

## Ratings and Characteristic Curves (BY251 thru BY255)

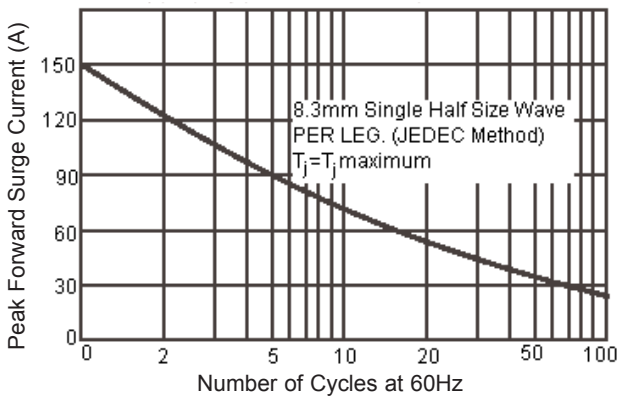
Maximum Forward Current Derating Curve



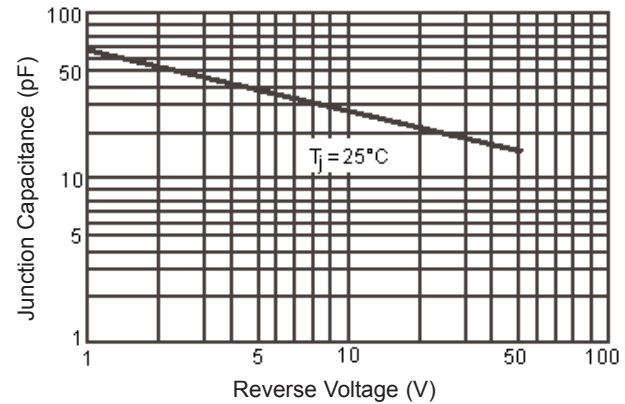
Typical Reverse Characteristics



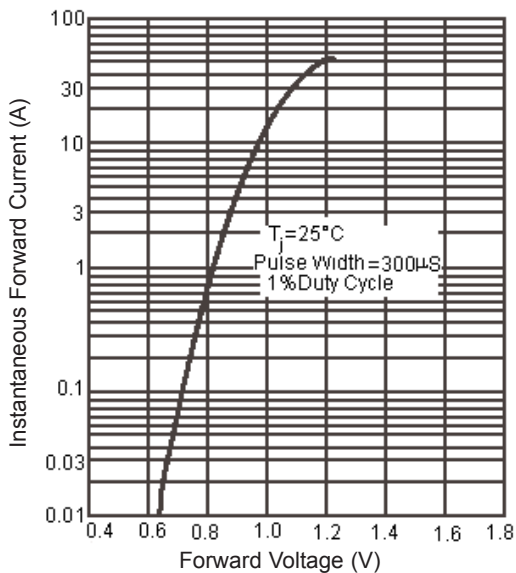
Maximum Non-Repetitive Forward Surge Current Per Leg



Typical Junction Capacitance



Typical Forward Characteristics



## Part Number Table

Description	Part Number
Diode, Standard, 3A, 200V	BY251
Diode, Standard, 3A, 400V	BY252
Diode, Standard, 3A, 600V	BY253
Diode, Standard, 3A, 800V	BY254
Diode, Standard, 3A, 1300V	BY255

## Notes:

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