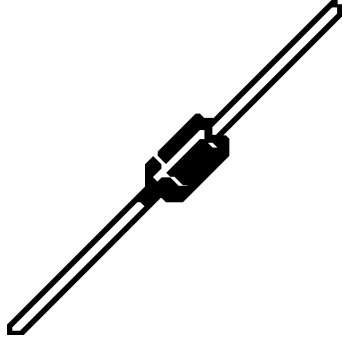


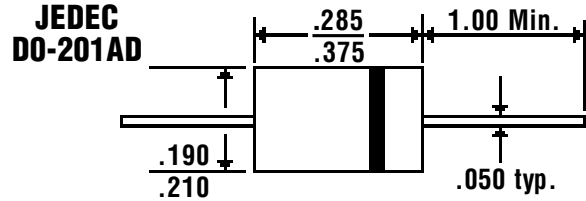
# 3.0 Amp MINIATURE PLASTIC SILICON RECTIFIERS

**BY251 . . . 255 Series**

## Description



## Mechanical Dimensions



## Features

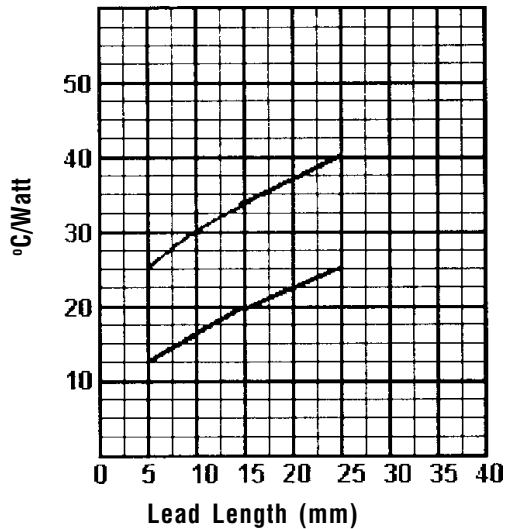
- LOW COST
- HIGH CURRENT CAPABILITY
- DIFFUSED JUNCTION
- MEETS UL SPECIFICATION 94V-0

Electrical Characteristics @ 25°C.	BY251 . . . 255 Series					Units
Maximum Ratings	BY251	BY252	BY253	BY254	BY255	
Peak Repetitive Reverse Voltage... $V_{RRM}$	200	400	600	800	1300	Volts
RMS Reverse Voltage... $V_{R(rms)}$	140	280	420	560	910	Volts
DC Blocking Voltage... $V_{DC}$	200	400	600	800	1300	Volts
Average Forward Rectified Current... $I_{F(av)}$ $T_A = 50^\circ\text{C}$ (Note 3)	..... 3.0 .....					Amps
Repetitive Peak Forward Surge Current... $I_{FM}$	..... 20 .....					Amps
Non-Repetitive Peak Forward Surge Current... $I_{FSM}$ @ Rated Current & Temp	..... 100 .....					Amps
Forward Voltage @ 3.0A... $V_F$	..... 1.1 .....					Volts
DC Reverse Current... $I_R$	..... 20 .....					μAmps
Typical Thermal Resistance... $R_{\theta JC}$ (Note 2)	..... 30 .....					°C / W
Operating & Storage Temperature Range... $T_J, T_{STRG}$	..... -50 to 150 .....					°C

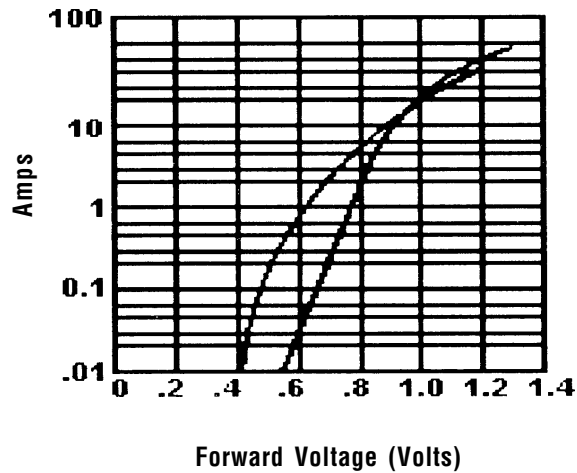
# 3.0 Amp MINIATURE PLASTIC SILICON RECTIFIERS

**BY251 . . . 255 Series**

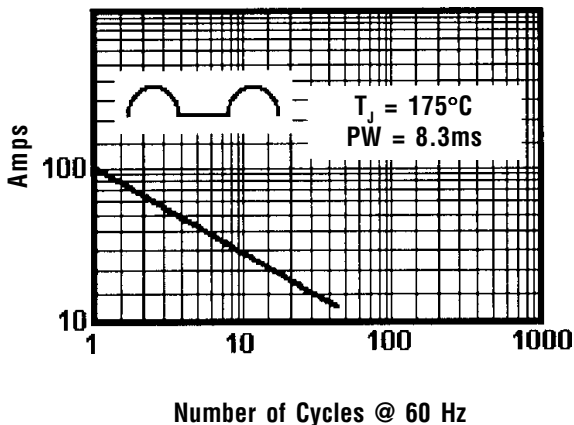
**Thermal Resistance**



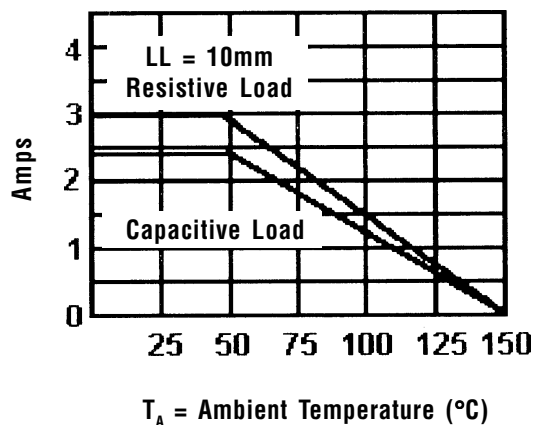
**Instantaneous Forward Characteristics**



**Peak Forward Surge Current**



**Forward Current Derating Curve**



Ratings at 25 Deg. C ambient temperature unless otherwise specified.

Single Phase Half Wave, 60 HZ Resistive or Inductive Load.

For Capacitive Load, Derate Current by 20%.

- NOTES:**
1. Measured @ 1 MHz and applied reverse voltage of 4.0V.
  2. Thermal Resistance Junction to Ambient, Jedec Method.
  3. When Mounted to heat sink, from body.