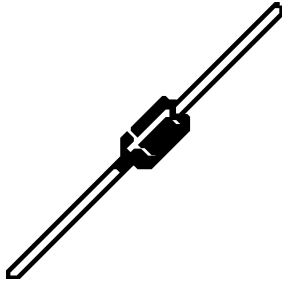


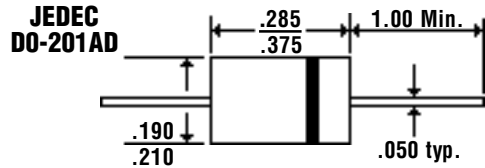
# 3.0 Amp MINIATURE PLASTIC SILICON RECTIFIERS

**BY251 . . . 255 Series**

## Description



## Mechanical Dimensions



## Features

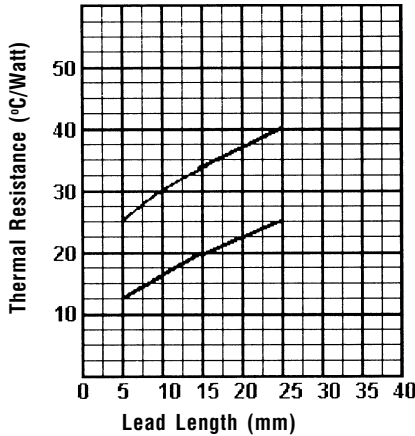
- **LOW COST**
- **HIGH CURRENT CAPABILITY**
- **DIFFUSED JUNCTION**
- **MEETS UL SPECIFICATION 94V-0**

<b>BY251 . . . 255 Series</b>						<b>Units</b>
<b>Maximum Ratings</b>	<b>BY251</b>	<b>BY252</b>	<b>BY253</b>	<b>BY254</b>	<b>BY255</b>	
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
Operating & Storage Temperature Range... $T_J, T_{STRG}$	-50 to 150					°C
<b>Electrical Characteristics</b>						
Maximum Forward Voltage @ 3.0A... $V_F$	1.1					Volts
Maximum DC Reverse Current... $I_R$	10					μAmps
Typical Thermal Resistance... $R_{\theta JA}$ (Note 2)	30					°C / W

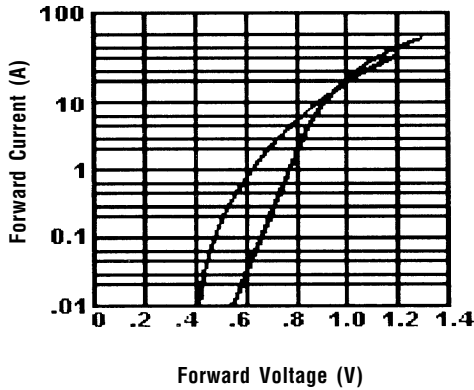
# 3.0 Amp MINIATURE PLASTIC SILICON RECTIFIERS

**BY251 . . . 255 Series**

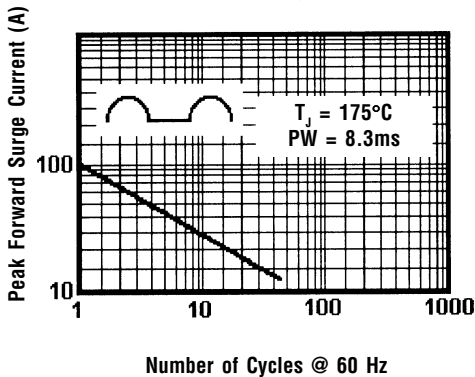
**Thermal Resistance**



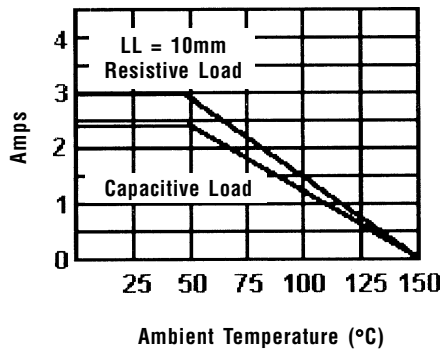
**Instantaneous Forward Characteristics**



**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. .375", (9.5mm) lead lengths.