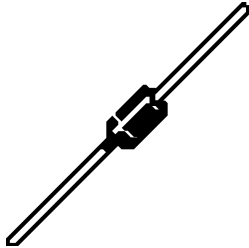


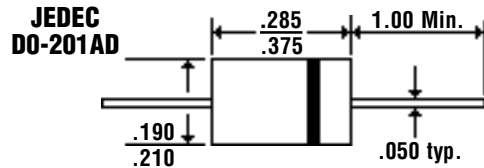
3.0 Amp FAST RECOVERY PLASTIC RECTIFIERS

BY396 . . . 399 Series

Description



Mechanical Dimensions

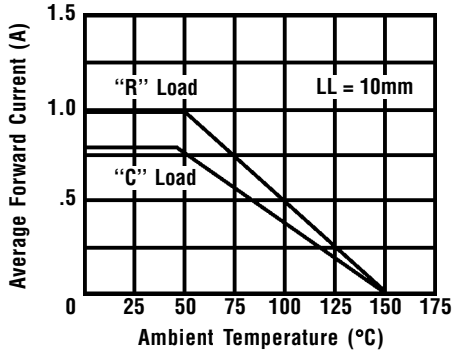


Features

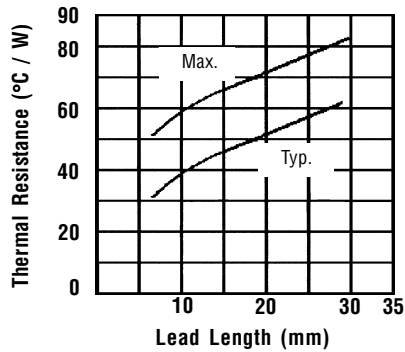
- FAST SWITCHING FOR HIGH EFFICIENCY
- HIGH SURGE CAPABILITY
- 3.0 AMP OPERATION @ $T_A = 50^\circ\text{C}$, WITH NO THERMAL RUNAWAY
- MEETS UL SPECIFICATION 94V-0

BY396 . . . 399 Series					Units
Maximum Ratings	BY396	BY397	BY398	BY399	
Peak Repetitive Reverse Voltage... V_{RRM}	100	200	400	800	Volts
RMS Reverse Voltage... $V_{R(rms)}$	70	140	280	560	Volts
DC Blocking Voltage... V_{DC}	100	200	400	800	Volts
Average Forward Rectified Current... $I_{F(av)}$ $T_A = 50^\circ\text{C}$	3.0				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
Electrical Characteristics					
Maximum Forward Voltage @ 3.0A... V_F	1.3				Volts
Maximum DC Reverse Current... I_R @ Rated DC Blocking Voltage	10				μAmps
Maximum Thermal Resistance... $R_{\theta JC}$	30				°C / W
Maximum Reverse Recovery Time... t_{RR} @ $I_F = 10\text{mA}, I_R = 10\text{mA}, I_{RR} = 1\text{mA}$	500				ns

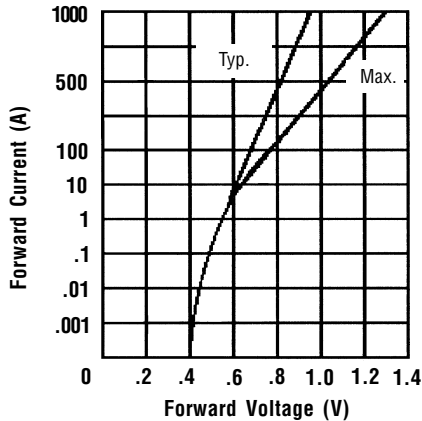
Forward Current Derating Curve



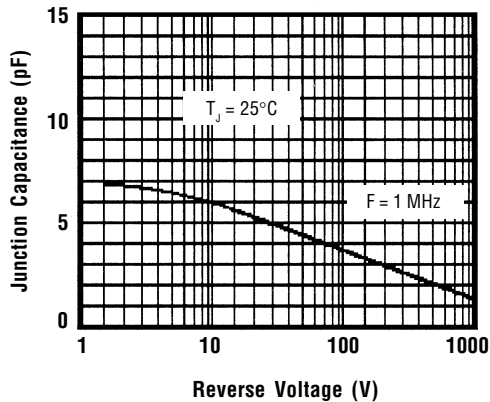
Thermal Resistance Junction & Ambient



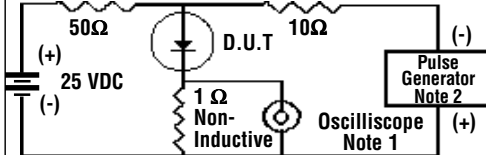
Instantaneous Forward Characteristics



Typical Junction Capacitance

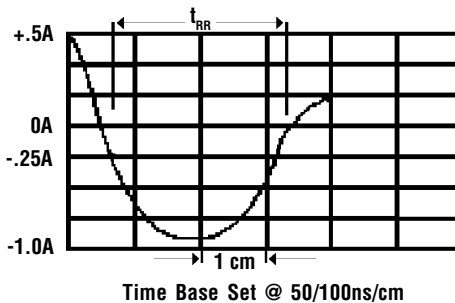


Non-Inductive



- Notes: 1. Rise Time = 7 ns Max.
Impedance = 1 megohm, 22 pF
2. Rise Time = 10 ns Max.
Source Impedance = 50 Ohms

Reverse Recovery Characteristics



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 Case, Jedec Method.