

**SOFT RECOVERY/FAST SWITCHING RECTIFIER**

**VOLTAGE RANGE 50 to 600 Volts CURRENT 3.0 Amperes**

**FEATURES**

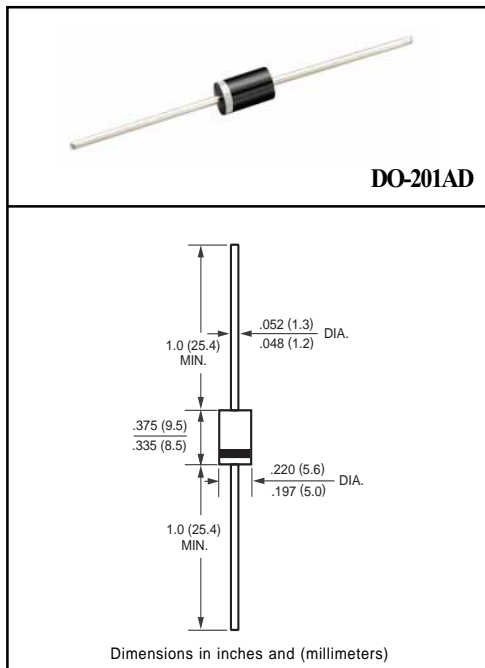
- \* Fast switching
- \* Low leakage
- \* Low forward voltage drop
- \* High current capability
- \* High surge capability
- \* High reliability

**MECHANICAL DATA**

- \* Case: Molded plastic
- \* Epoxy: Device has UL flammability classification 94V-0
- \* Lead: MIL-STD-202E method 208C guaranteed
- \* Mounting position: Any
- \* Weight: 1.20 grams

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings 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%.



**MAXIMUM RATINGS** (At TA = 25°C unless otherwise noted)

RATINGS	SYMBOL	RL850	RL851	RL852	RL854	RL856	UNITS	
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	Volts	
Maximum RMS Voltage	VRMS	35	70	140	280	420	Volts	
Maximum DC Blocking Voltage	Vbc	50	100	200	400	600	Volts	
Maximum Average Forward Rectified Current at TA = 90°C	Io	3.0						Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	100						Amps
Maximum Reverse Recovery Current	IRR	2.0						Amps
Typical Junction Capacitance (Note 2)	CJ	65						pF
Operating and Storage Temperature Range	TJ, TSTG	-55 to + 150						°C

**ELECTRICAL CHARACTERISTICS** (At TA = 25°C unless otherwise noted)

CHARACTERISTICS	SYMBOL	RL850	RL851	RL852	RL854	RL856	UNITS	
Maximum Instantaneous Forward Voltage at 3.0A DC	VF	1.3						Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage TA = 25°C	IR	1.0						uAmps
Maximum Full Load Reverse Current Average , Full Cycle .375" (9.5mm) lead length at TL = 100°C		150	150	200	250	300	uAmps	
Maximum Reverse Recovery Time (Note 1)	trr	200						nSec

NOTES : 1. Test Conditions: IF = 1.0A, VR = 30V

2. Measured at 1 MHz and applied reverse voltage of 4.0 volts

# RATING AND CHARACTERISTIC CURVES ( RL850 THRU RL856 )

