

**SOFT RECOVERY/FAST SWITCHING RECTIFIER**

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

**FEATURES**

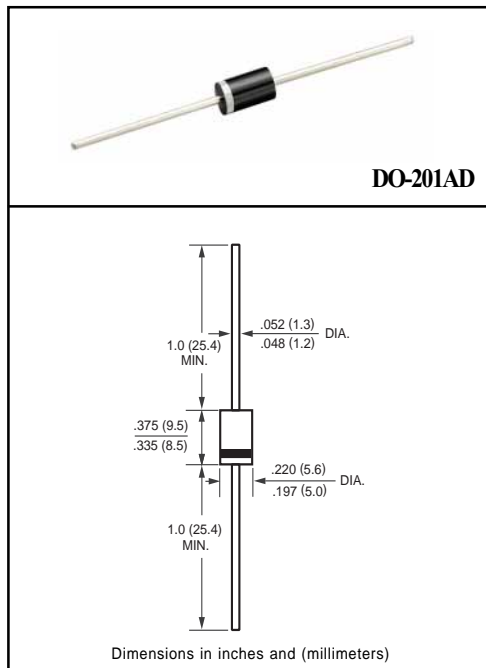
- \* Fast switching
- \* Low leakage
- \* Low forward voltage drop
- \* High current capability
- \* High surge capability
- \* High reliability

**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	V <sub>RRM</sub>	50	100	200	400	600	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	Volts
Maximum DC Blocking Voltage	V <sub>BC</sub>	50	100	200	400	600	Volts
Maximum Average Forward Rectified Current at TA = 90°C	I <sub>O</sub>	3.0					Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	100					Amps
Maximum Reverse Recovery Current	I <sub>RR</sub>	2.0					Amps
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	65					pF
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-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	V <sub>F</sub>	1.3					Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage TA = 25°C	I <sub>R</sub>	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)	t <sub>rr</sub>	200					nSec

NOTES : 1. Test Conditions: I<sub>F</sub> = 1.0A, V<sub>R</sub> = 30V

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

# RATING AND CHARACTERISTIC CURVES ( RL850 THRU RL856 )

