# RL251 THRU RL257

### GENERAL PURPOSE PLASTIC RECTIFIERS Reverse Voltage – 50 to 1000 Volts Forward Current – 2.5 Amperes

#### Features

R-3

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- High surge current capability.
- 2.5 ampere operation at  $T_A=75^{\circ}C$  with no thermal runaway.
- Low reverse leakage.
- Construction utilizes void-free molded plastic technique.
- High temperature soldering guaranteed: 250°C/10 seconds, 0.375"(9.5mm) lead length, 5 lbs (2.3kg) tension.

#### **Mechanical Data**

- Case: Molded plastic, R-3
- Terminals: Plated axial leads, solderable per MIL-STD-750, method 2026
- Polarity: Color band denotes cathode end.
- Mounting Position: Any.



Dimensions in mm

## Absolute Maximum Ratings and Characteristics @ 25°C unless otherwise specified.

	Symbols	RL251	RL252	RL253	RL254	RL255	RL256	RL257	Units
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts
Maximum average forward current									
at $T_A = 75 ^{\circ}C$	I <sub>(AV)</sub>	2.5							Amps
Peak forward surge current									
8.3mS single half sine-wave superimposed	I <sub>FSM</sub> 150							Amps	
on rated load (MIL-STD-750D 4066 method)									
Maximum instantaneous forward voltage	¥-	1.1							Volts
at $I_{FM}=2.5A$ , $T_A=25^{\circ}C(Note 2)$	VF								
Maximum DC reverse current $T_A = 25 ^{\circ}C$		5 50							μA
at rated DC blocking voltage $T_A = 100^{\circ}C$	IR								
Typical thermal resistance	R <sub>∉JA</sub>				35				°C/W
Typical junction capacitance (Note 1)	CJ	35							pF
Operating and storage temperature range	T <sub>J</sub> ,T <sub>Stg</sub>	-65 to +175							°C

Notes:

(1) Measured at  $1MH_z$  and applied reverse voltage of 4volts

(2) Pulse test: pulse width 300uSec, Duty cycle 1%.

