

RL251 THRU RL257

GENERAL PURPOSE PLASTIC RECTIFIERS

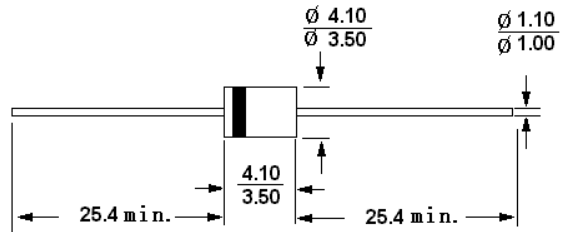
Reverse Voltage – 50 to 1000 Volts

Forward Current – 2.5 Amperes

R-3

Features

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



Dimensions in mm

Mechanical Data

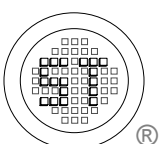
- **Case:** Molded plastic, R-3
- **Terminals:** Plated axial leads, solderable per MIL-STD-750, method 2026
- **Polarity:** Color band denotes cathode end.
- **Mounting Position:** Any.

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_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum average forward current at $T_A = 75^{\circ}\text{C}$	$I_{(AV)}$	2.5							Amps
Peak forward surge current 8.3mS single half sine-wave superimposed on rated load (MIL-STD-750D 4066 method)	I_{FSM}	150							Amps
Maximum instantaneous forward voltage at $I_{FM}=2.5\text{A}$, $T_A=25^{\circ}\text{C}$ (Note 2)	V_F	1.1							Volts
Maximum DC reverse current $T_A = 25^{\circ}\text{C}$ at rated DC blocking voltage $T_A = 100^{\circ}\text{C}$	I_R	5							μA
Typical thermal resistance	$R_{\theta JA}$	35							$^{\circ}\text{C}/\text{W}$
Typical junction capacitance (Note 1)	C_J	35							pF
Operating and storage temperature range	T_J, T_S	-65 to +175							$^{\circ}\text{C}$

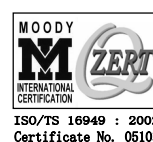
Notes:

- (1) Measured at 1MHz and applied reverse voltage of 4volts
- (2) Pulse test: pulse width 300uSec, Duty cycle 1%.



SEMTECH ELECTRONICS LTD.

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ISO/TS 16949 : 2002
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