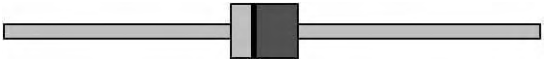
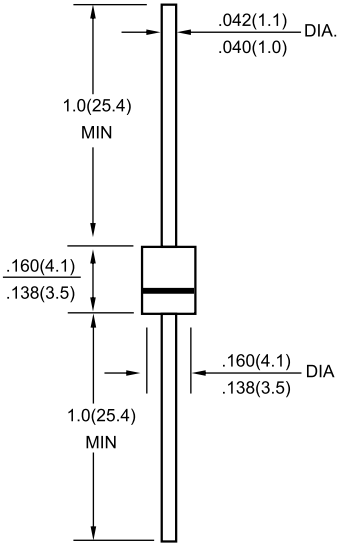
RL251-RL257

Genral Purpose Plastic Rectifier

Reverse Voltage - 50 to 1000 Volts
Forward Current - 2.5 Amperes



R-3



Dimensions in inches and (millimeters)

Features

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

Mechanical Data

- ✧ **Case:** R-3 molded plastic body
- ✧ **Polarity:** Color band denotes cathode end
- ✧ **Mounting Position:** Any
- ✧ **Weight** : 0.645 gram

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Type Number	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℃	$I_{(AV)}$	2.5							Amps
Peak forward surge current 8.3mS single half sine-wave superimposed on rated load (MIL-STD-750D 4066 method)	I_{FSM}	150.0							Amps
Maximum instantaneous forward voltage at I_{FM}=2.5A, T_A=25℃ (Note 2)	V_F	1.0							Volts
Maximum DC reverse current T_A=25℃ at rated DC blocking voltage T_A=100℃	I_R	5.0 50.0							μA
Typical junction capacitance (Note 1)	C_J	35.0							ρF
Typical thermal resistance	$R_{\theta JA}$	35							℃/W
Operating and storage temperature range	T_J, T_{STG}	-65 to +175							℃

Notes:

(1) Measured at 1.0MHz and applied reverse voltage of 4.0 volts

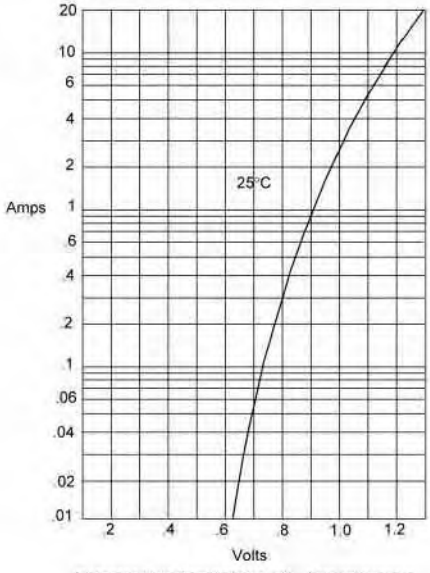
(2) Pulse test: pulse width 300uSec, Duty cycle 1%

RL251-RL257

Genral Purpose Plastic Rectifier

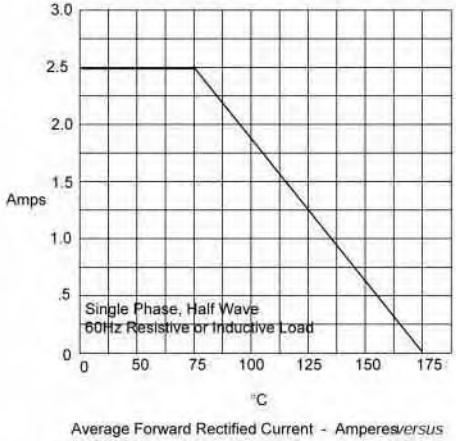
RATINGS AND CHARACTERISTIC CURVES

Figure 1
Typical Forward Characteristics



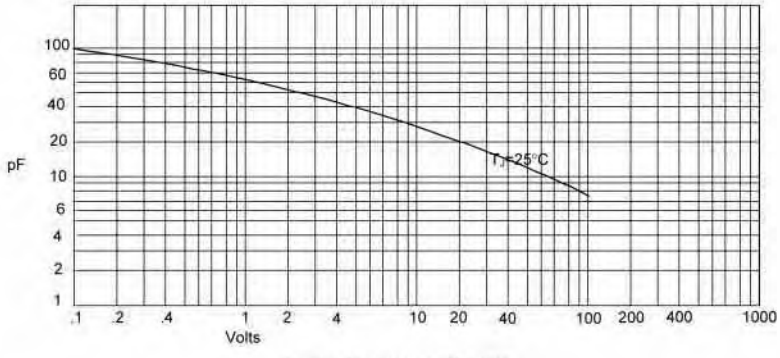
Instantaneous Forward Current - Amperes*versus*
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve



Average Forward Rectified Current - Amperes*versus*
Ambient Temperature -°C

Figure 3
Junction Capacitance



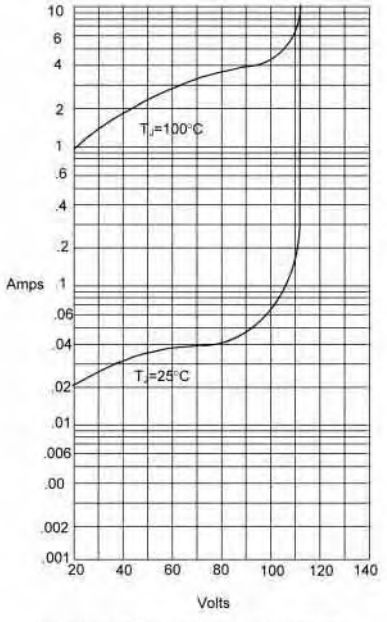
Junction Capacitance - pF *versus*
Reverse Voltage - Volts

RL251-RL257

Genral Purpose Plastic Rectifier

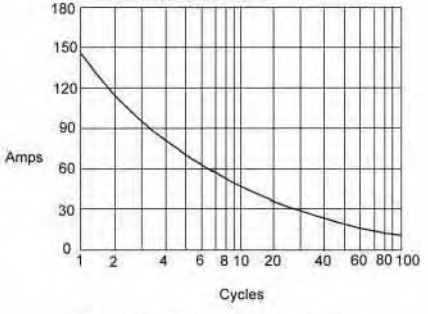
RATINGS AND CHARACTERISTIC CURVES

Figure 4
Typical Reverse Characteristics



Instantaneous Reverse Current - Amps*versus*
Percent Of Rated Peak Reverse Voltage - Volts

Figure 5
Peak Forward Surge Current



Peak Forward Surge Current - Amperes*versus*
Number Of Cycles At 60Hz - Cycles