

# GRL251 thru GRL257

General Purpose Plastic Rectifiers  
 Reverse Voltage 50V to 1000V Forward Current 2.5A

## Features

- The plastic package has underwrites laboratory flammability classification 94V-0
- Construction utilizes void-free molded plastic technique
- High surge current capability
- Low reverse leakage
- High temperature soldering guaranteed: 260°C/10 seconds, 0.375" (9.5mm) lead length, 5lbs. (2.3kg) tension
- Component in accordance to RoHs 2015/863/EU



DO-15

## Mechanical Data

- Case: JEDEC DO-15 molded plastic body
- Terminals: Lead solderable per MIL-STD-750, method 2026
- Polarity: Color band denotes cathode end
- Mounting position: Any
- Weight: 0.014 ounce, 0.39 gram

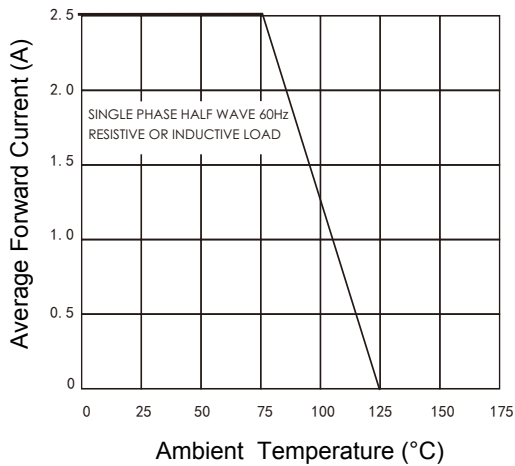
## Maximum Ratings and Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified, single phase, half wave 60Hz, resistive or inductive load. For capacitive load, derate by 20%. )

Parameters	Symbols	GRL 251	GRL 252	GRL 253	GRL 254	GRL 255	GRL 256	GRL 257	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	300	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	300	400	600	800	1000	V
Maximum average Forward Rectified Current	$I_{(AV)}$	2.5							A
Peak Forward Surge Current (8.3ms Half Sine-Wave Superimposed on Rated Load) (JEDEC Method)	$I_{FSM}$	60.0							A
Maximum Instantaneous Forward Voltage at 2.5A	$V_F$	1.1							V
Maximum Reverse Current at Rated DC Blocking Voltage	$T_A=25^{\circ}C$	5.0							$\mu A$
	$T_A=100^{\circ}C$	200							
Typical Thermal Resistance <sup>2</sup>	$R_{\theta JA}$	35.0							$^{\circ}C/W$
Typical Junction Capacitance <sup>1</sup>	$C_J$	25							pF
Operating Junction Temperature Range	$T_J$	-55 to +125							$^{\circ}C$
Storage Temperature Range	$T_{STG}$	-55 to +150							

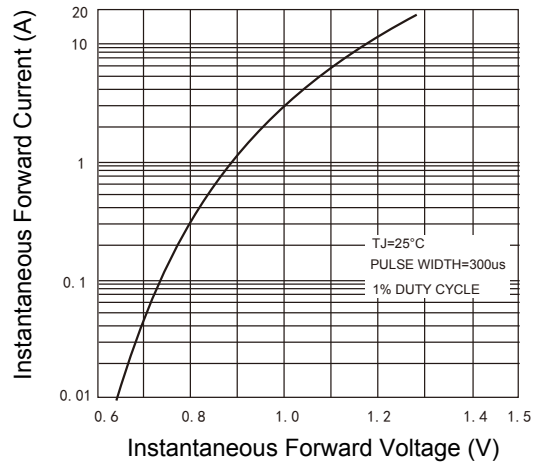
Notes:

1. Measured at 1MHz and applied reverse voltage of 4.0V DC.
2. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted.

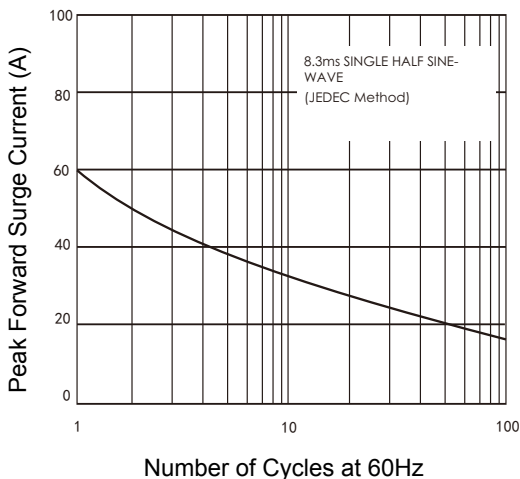
## Ratings and Characteristics Curves



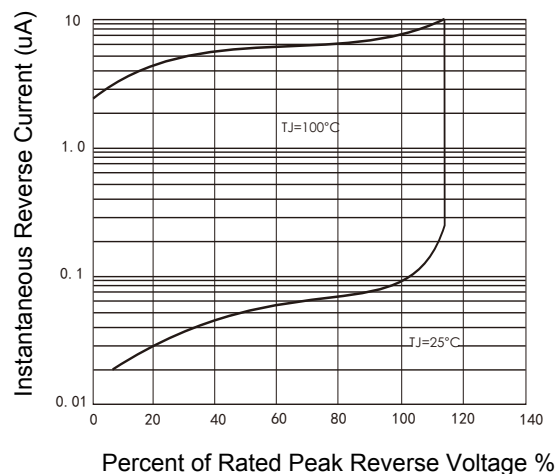
**Figure 1. Forward Current Derating Curve**



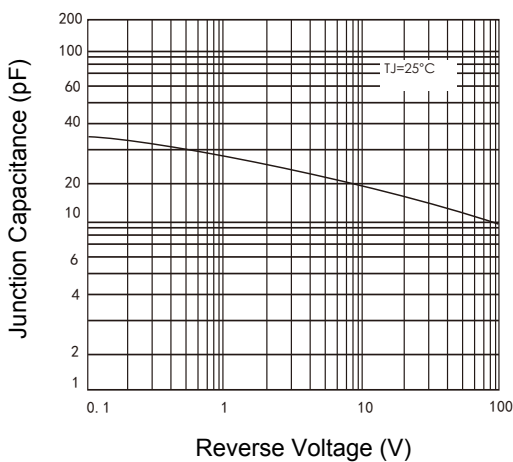
**Figure 2. Typical Instantaneous Forward Characteristics**



**Figure 3. Maximum Non-Repetitive Peak Forward Surge Current**



**Figure 4. Typical Reverse Characteristics**



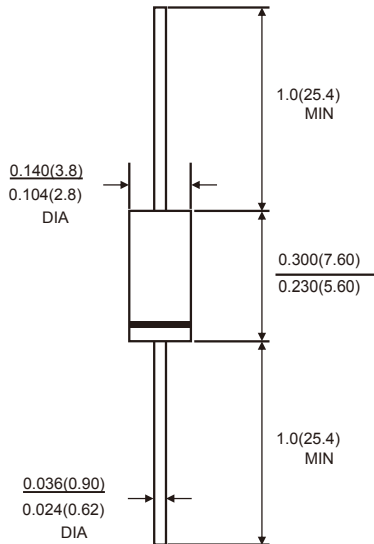
**Figure 5. Typical Junction Capacitance**

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General Purpose Plastic Rectifiers

Reverse Voltage 50V to 1000V Forward Current 2.5A

## Package Outline Dimensions (DO-15)



Unit in inches (millimeters)

## Order Information

Device	Package	Marking	Quantity
GRL251	DO-15	RL251	3,000pcs / Box
GRL252	DO-15	RL252	3,000pcs / Box
GRL253	DO-15	RL253	3,000pcs / Box
GRL254	DO-15	RL254	3,000pcs / Box
GRL255	DO-15	RL255	3,000pcs / Box
GRL256	DO-15	RL256	3,000pcs / Box
GRL257	DO-15	RL257	3,000pcs / Box