

# RL251 - RL257

**PRV : 50 - 1000 Volts**  
**Io : 2.5 Amperes**

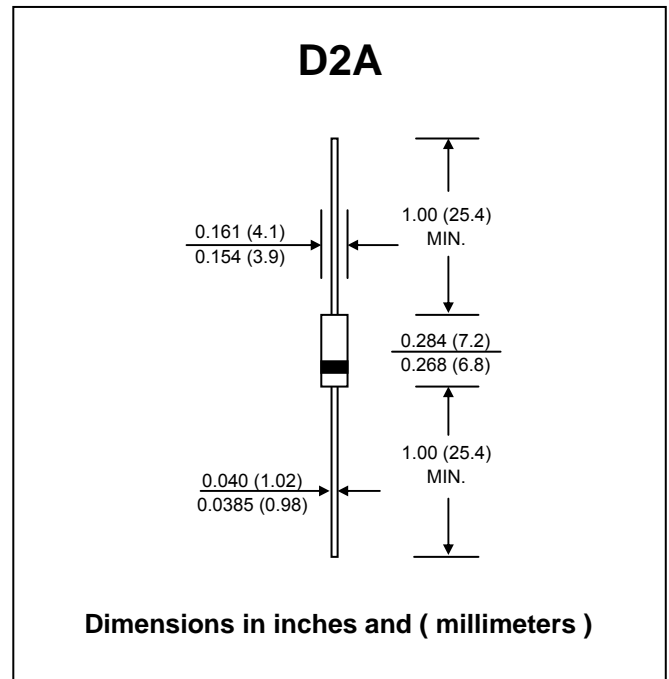
**FEATURES :**

- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* **Pb / RoHS Free**

**MECHANICAL DATA :**

- \* Case : D2A Molded plastic
- \* Epoxy : UL94V-O rate flame retardant
- \* Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- \* Polarity : Color band denotes cathode end
- \* Mounting position : Any
- \* Weight : 0.645 gram

## SILICON RECTIFIER DIODES



**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Rating at 25 °C ambient temperature unless otherwise specified.

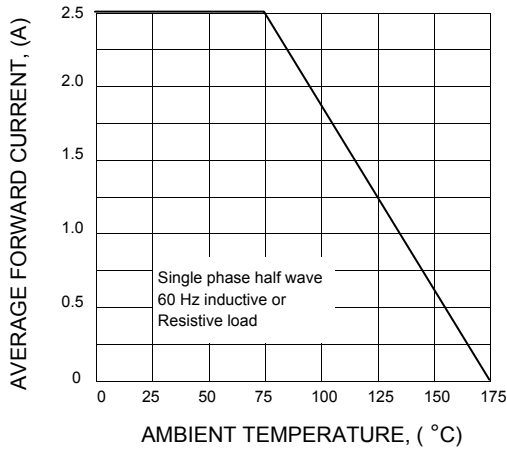
RATING	SYMBOL	RL251	RL252	RL253	RL254	RL255	RL256	RL257	UNIT
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Current at $T_a = 75\text{ }^\circ\text{C}$	$I_{F(AV)}$	2.5							A
Peak Forward Surge Current 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method)	$I_{FSM}$	150							A
Maximum Forward Voltage at $I_F = 2.5\text{ A}$	$V_F$	1.1							V
Maximum DC Reverse Current $T_a = 25\text{ }^\circ\text{C}$ at rated DC Blocking Voltage $T_a = 100\text{ }^\circ\text{C}$	$I_R$	5							$\mu\text{A}$
	$I_{R(H)}$	50							$\mu\text{A}$
Typical Junction Capacitance (Note 1)	$C_J$	35							pF
Typical Thermal Resistance	$R_{\theta JA}$	35							$^\circ\text{C/W}$
Operation Junction and Storage Temperature Range	$T_J, T_{STG}$	- 65 to + 175							$^\circ\text{C}$

**Note :**

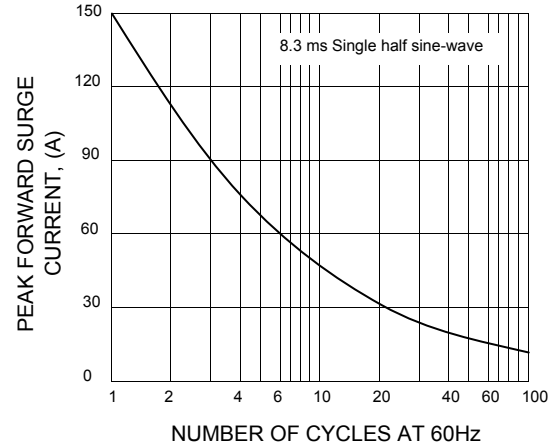
(1) Measured at 1.0 MHz and applied reverse voltage of 4.0 Vdc

**RATING AND CHARACTERISTIC CURVES (RL251 - RL257)**

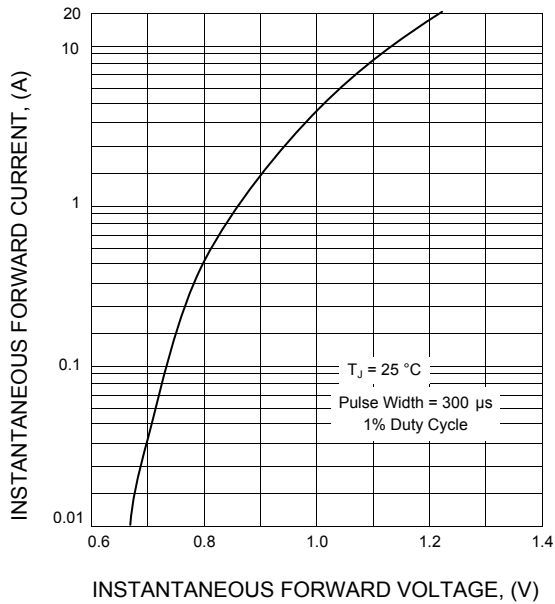
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



**FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS**

