



General Purpose Plastic Rectifiers  
Reverse Voltage 50V to 1000V Forward Current 2.0 Amperes



# RL201 thru RL207

### Features

- Low cost
- Low leakage
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0
- Tj is 150 °C (max) and Tstg is 175 °C (max) with PI glue

### Mechanical Characteristics:

- Case: JEDEC DO-204AC(DO-15) molded plastic
- Terminals: Tin plated axial leads, solderable per MIL-STD-202E, method 208C
- Polarity: Color band denotes cathode
- Mounting position: Any
- Weight : 0.014oz., 0.39grams

### Maximum Ratings and Electrical Characteristics

(Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%)

Parameter	Symbol	Type							Units
		RL201	RL202	RL203	RL204	RL205	RL206	RL207	
Maximum Repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum instantaneous forward voltage I <sub>F</sub> =2A	V <sub>F</sub>	1.1							V
Maximum average forward rectified current, 0.375"(9.5mm) lead length at T <sub>A</sub> =50°C	I <sub>F(AV)</sub>	2							A
Peak forward surge current @8.3ms single half sine wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	70							A
Maximum DC reverse current at rated DC blocking voltage	I <sub>R</sub>	T <sub>A</sub> =25°C							μA
		T <sub>A</sub> =100°C							
Maximum full load reverse current full cycle Average @ .375"(9.5mm) lead length at T <sub>L</sub> =75 °C	I <sub>R(AV)</sub>	30							
Typical junction capacitance (Note 1)	C <sub>J</sub>	20							pF
Typical Thermal Resistance	R <sub>θJA</sub>	40							°C/W
Storage temperature range	T <sub>stg</sub>	-50 ~ +125							°C
Operating junction temperature range	T <sub>J</sub>	-50 ~ +150							°C

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0VDC



### Ratings and Characteristic Curves

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

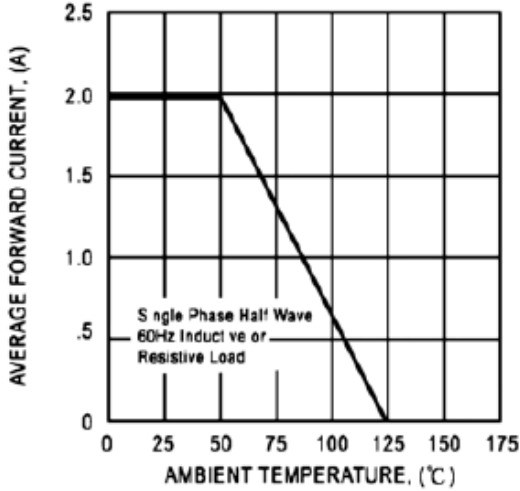


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

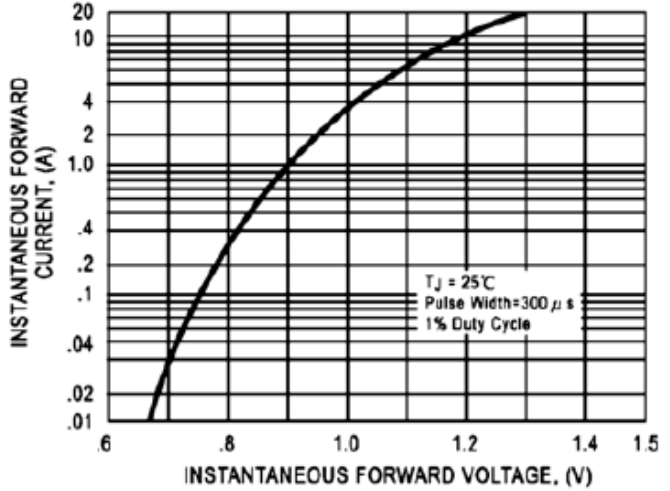


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

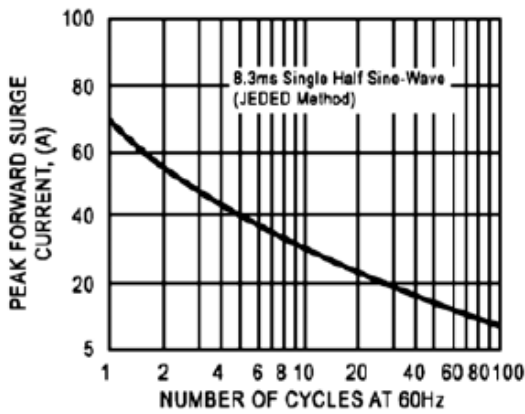


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

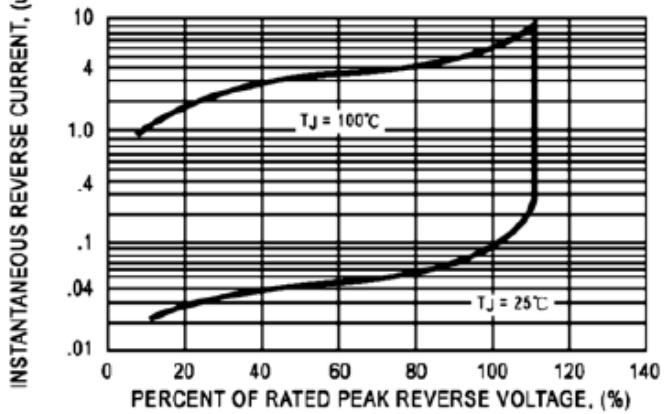
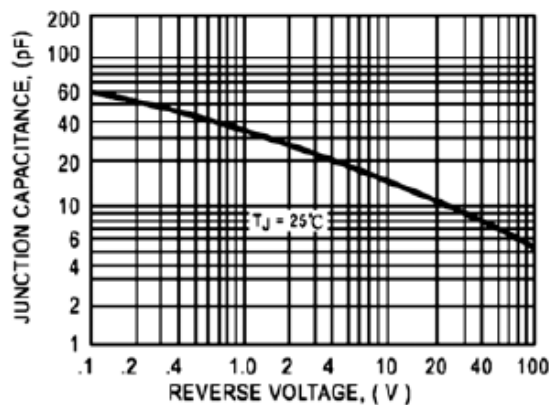
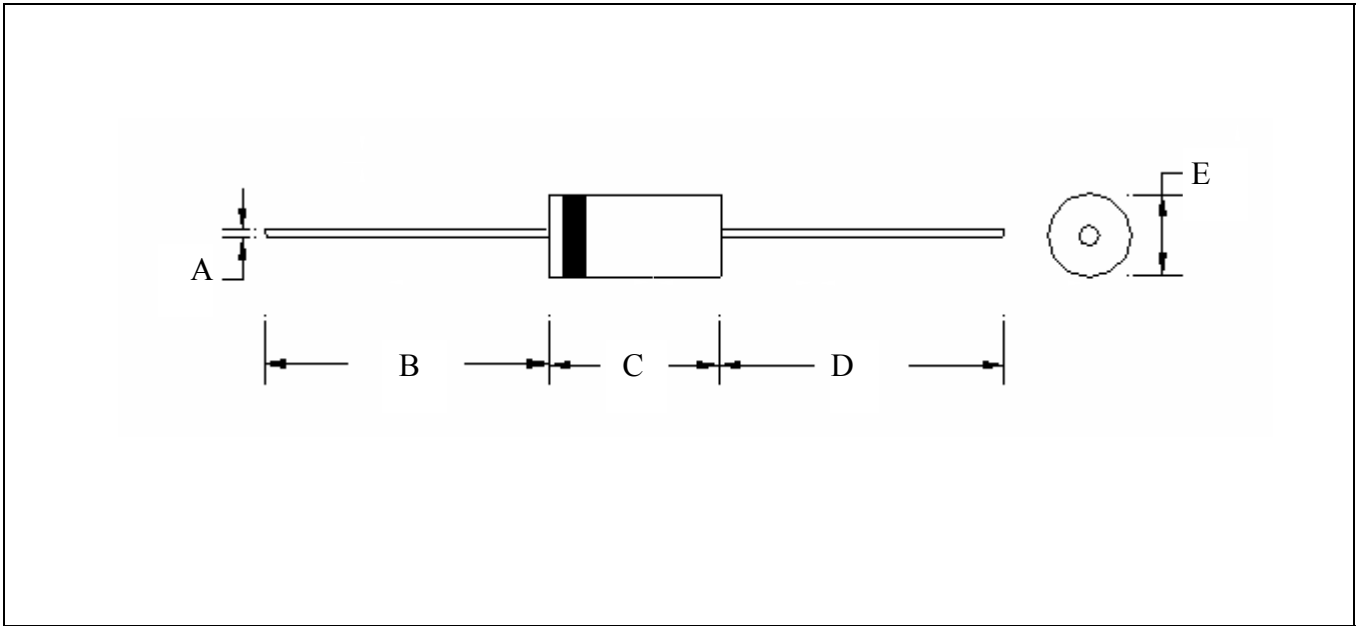


FIG. 5 - TYPICAL JUNCTION CAPACITANCE



**DO-204AC(DO-15) Dimension**



\*:Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	φ0.028	φ0.034	φ0.70	φ0.90	D	1.000	-	25.40	-
B	1.000	-	25.40	-	E	φ0.104	φ0.140	φ2.60	φ3.60
C	0.2300	0.3000	5.80	7.60					

Notes : 1.Controlling dimension : millimeters.  
 2.Maximum lead thickness includes lead finish thickness, and minimum lead thickness is the minimum thickness of base material.  
 3.If there is any question with packing specification or packing method, please contact your local CYStek sales office.

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