

## General Purpose Rectifier

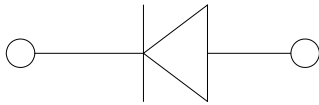


### Features

- High efficiency
- High current capability
- High reliability
- High surge current capability
- Low power loss
- Glass passivated chip junction
- Solder dip 275 °C max. 7 s, per JESD 22-B106

### Typical Applications

For use in general purpose rectification of power supplies, inverters, converters, and freewheeling diodes for consumer, and telecommunication.



### Mechanical Data

- **Package:** DO-204AC(DO-15)  
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Color band denotes cathode end

### ■ Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	RL251G	RL252G	RL253G	RL254G	RL255G	RL256G	RL257G
Device marking code			RL251G	RL252G	RL253G	RL254G	RL255G	RL256G	RL257G
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	V	50	100	200	400	600	800	1000
Maximum RMS Voltage	V <sub>RMS</sub>	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage	V <sub>DC</sub>	V	50	100	200	400	600	800	1000
Average Forward Current @60Hz sine wave, Resistance load, Ta =50°C	I <sub>F(AV)</sub>	A	2.5						
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, Tj=25°C	I <sub>FSM</sub>	A	120						
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25°C			240						
Current squared time @1ms≤t≤8.3ms Tj=25°C, Rating of per diode	I <sup>2</sup> t	A <sup>2</sup> s	60						
Typical junction capacitance @Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	C <sub>j</sub>	pF	22						
Storage Temperature	T <sub>stg</sub>	°C	-55 ~ +150						
Junction Temperature	T <sub>j</sub>	°C	-55 ~ +150						

### ■ Electrical Characteristics (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	RL251G	RL252G	RL253G	RL254G	RL255G	RL256G	RL257G
Maximum instantaneous forward voltage drop per diode	V <sub>F</sub>	V	I <sub>FM</sub> =2.5A	1.1						
Maximum DC reverse current at rated DC blocking voltage per diode	I <sub>R</sub>	μA	T <sub>j</sub> =25°C	2.5						
			T <sub>j</sub> =125°C	50						



# RL251G THRU RL257G

## ■ Thermal Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	RL251G	RL252G	RL253G	RL254G	RL255G	RL256G	RL257G
Typical Thermal Resistance	R <sub>θJA</sub>	°C/W	45						

## ■ Ordering Information (Example)

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
RL251G~RL257G	D1	Approximate 0.38	3000	3000	30000	Tape
RL251G~RL257G	C1	Approximate 0.38	500	500	25000	Bulk

## ■ Characteristics (Typical)

FIG.1: I<sub>o</sub>-T<sub>a</sub> Curve

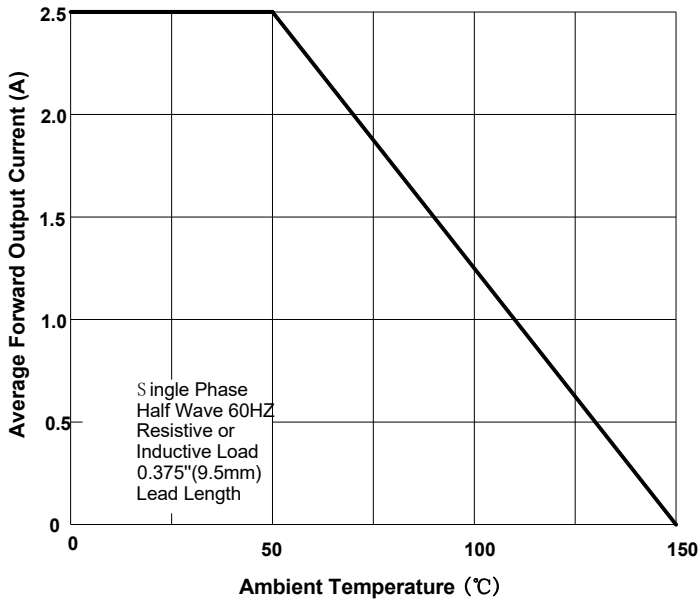


FIG.2: Forward Surge Current Capability

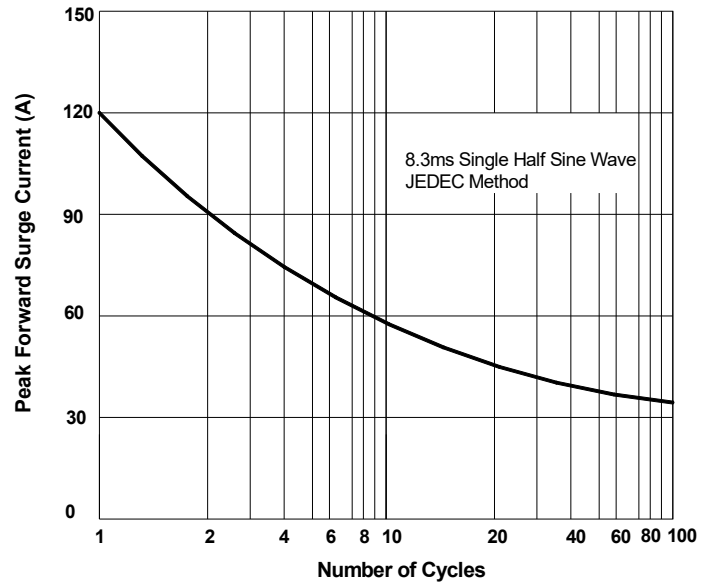


FIG.3: Forward Voltage

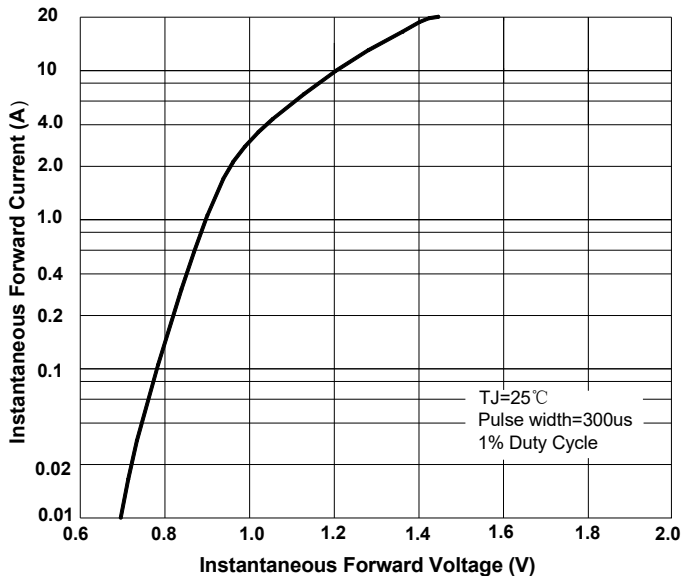
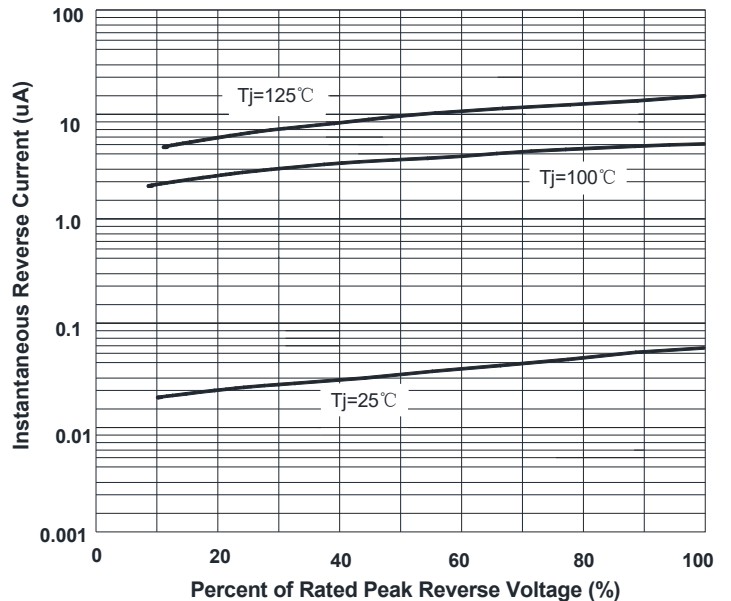
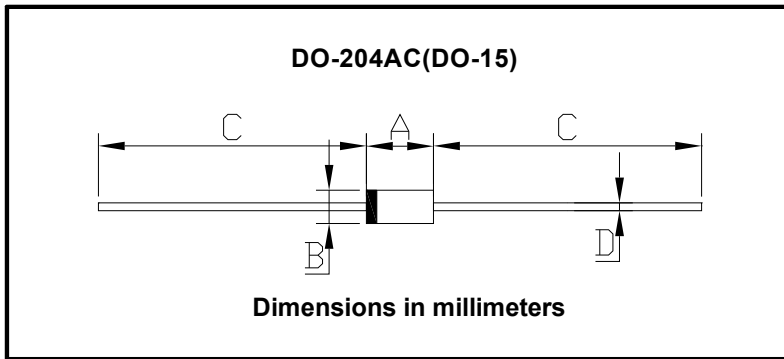


FIG.4: Typical Reverse Characteristics





## ■ Outline Dimensions



<b>DO-204AC(DO-15)</b>		
Dim	Min	Max
A	5.80	7.60
B	2.60	3.60
C	25.4	/
D	0.70	0.90



## RL251G THRU RL257G

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