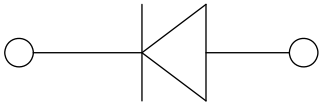
General Purpose Rectifier

RL251G Through RL257G DO-204AC(DO-15)



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℃ 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_{RRM}	V	50	100	200	400	600	800	1000
Maximum RMS Voltage	V_{RMS}	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage	V_{DC}	V	50	100	200	400	600	800	1000
Average Forward Current @60Hz sine wave, Resistance load, Ta =50℃	$I_{F(AV)}$	A	2.5						
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave,1 cycle, Tj=25℃	I_{FSM}	A	120						
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25℃			240						
Current squared time @1ms≤t8.3≤ms Tj=25℃， Rating of per diode	I^2t	A^2s	60						
Typical junction capacitance @Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	Cj	pF	22						
Storage Temperature	Tstg	℃	-55 ~ +150						
Junction Temperature	Tj	℃	-55 ~ +150						

ELECTRICAL CHARACTERISTICS (Ta=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	RL251G	RL252G	RL253G	RL254G	RL255G	RL256G	RL257G
Maximum instantaneous forward voltage drop per diode	VF	V	I_{FM}=2.5A	1.1						
Maximum DC reverse current at rated DC blocking voltage per diode	IR	μA	Tj=25℃	2.5						
			Tj=125℃	50						

THERMAL CHARACTERISTICS (Ta=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	RL251G	RL252G	RL253G	RL254G	RL255G	RL256G	RL257G
Typical Thermal Resistance	$R_{\theta J-A}$	℃/W	45						

PACKAGING INFORMATION

PREFERED 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: Io-Ta Curve

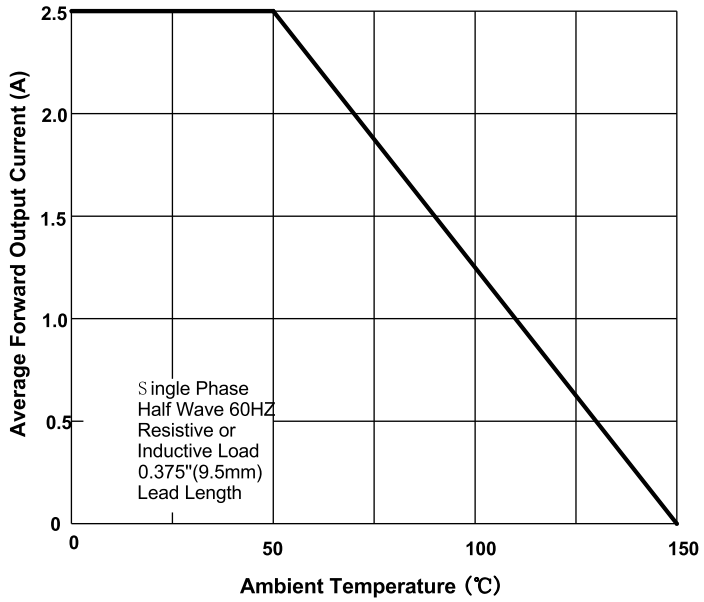


FIG.2: Forward Surge Current Capability

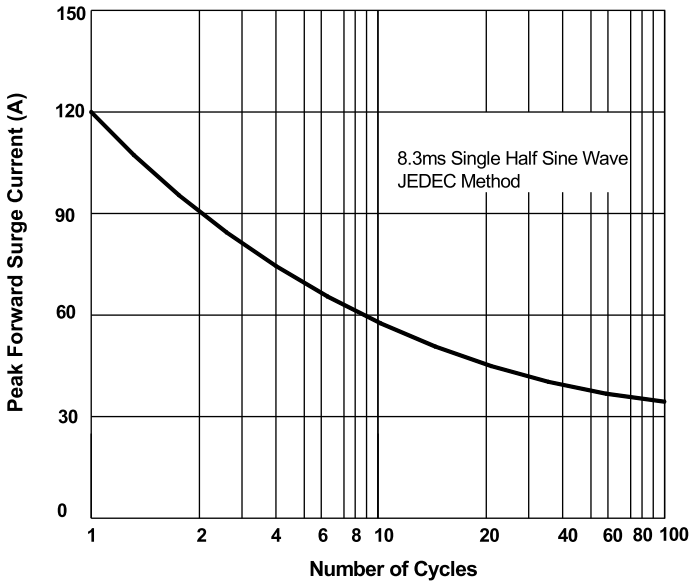


FIG.3: Forward Voltage

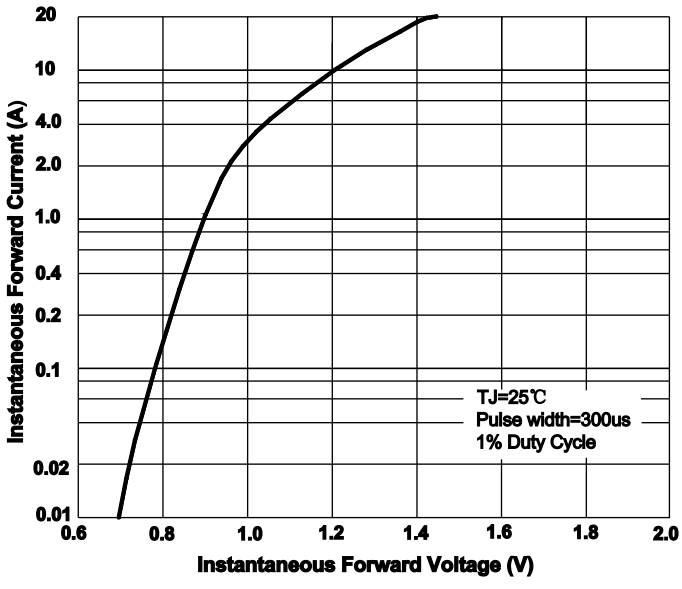
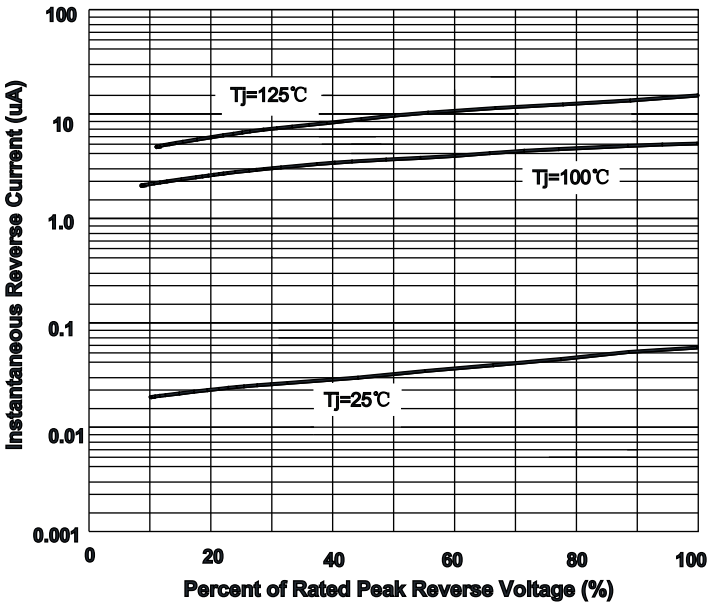
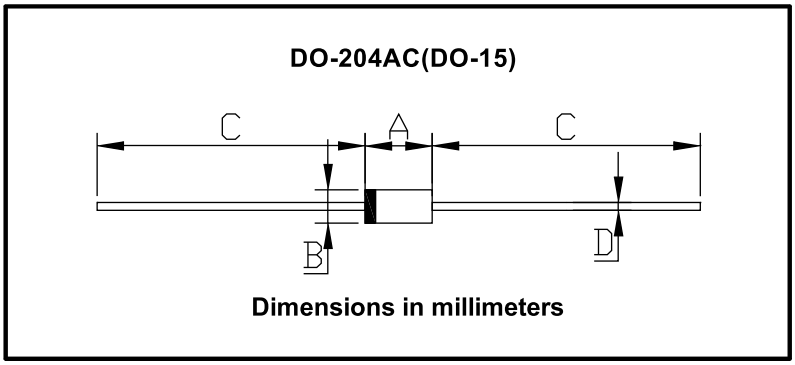


FIG.4: Typical Reverse Characteristics



■ OUTLINE DIMENSIONS



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