Technical Data
Data Sheet N1630, Rev. A

RL251G THRU RL257G
GENERAL PURPOSE PLASTIC RECTIFIER

DO-15

Features

- Low forward voltage drop
- Low leakage current
- High forward surge capability
- Solder Resistance 270°C / 7s, or 380°C / 3s
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC
- This is a Pb − Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Circuit Diagram

Mechanical Data

- Case: JEDEC DO-15 molded plastic body
- Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.014 ounce, 0.40 grams

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

Characteristic	Symbol	RL 251G	RL 252G	RL 253G	RL 254G	RL 255G	RL 256G	RL 257G	Units
Maximum repetitive peak reverse voltage Maximum DC blocking voltage	V_{RRM} V_{DC}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum average forward rectified current 0.375”(9.5mm) lead length @T_A = 75°C	$I_{(AV)}$	2.5							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	120							A
Maximum instantaneous forward voltage at 2.5A	V_F	1.1							V
Maximum DC reverse current @T_A = 25°C at rated DC blocking voltage @T_A = 100°C	I_R	2.5 50.0							μA
Typical Junction Capacitance (Note 1)	C_J	45.0							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	45.0							°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150							°C

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

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Ratings and Characteristics Curves

FIG.1 FORWARD CURRENT DERATING CURVE

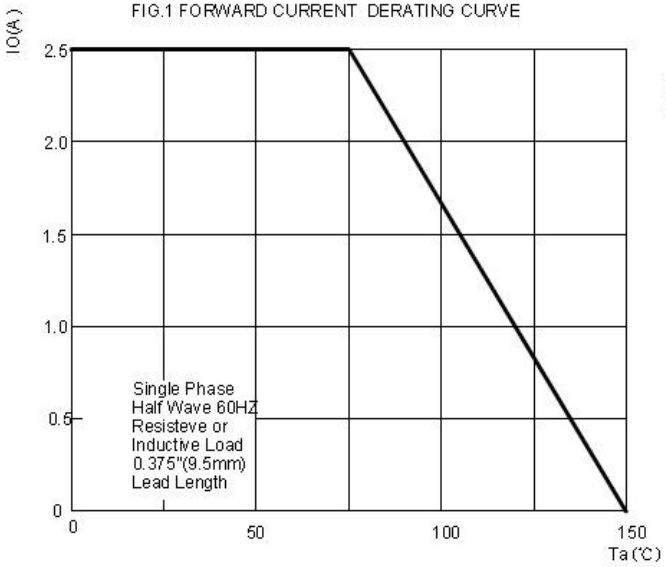


FIG.2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

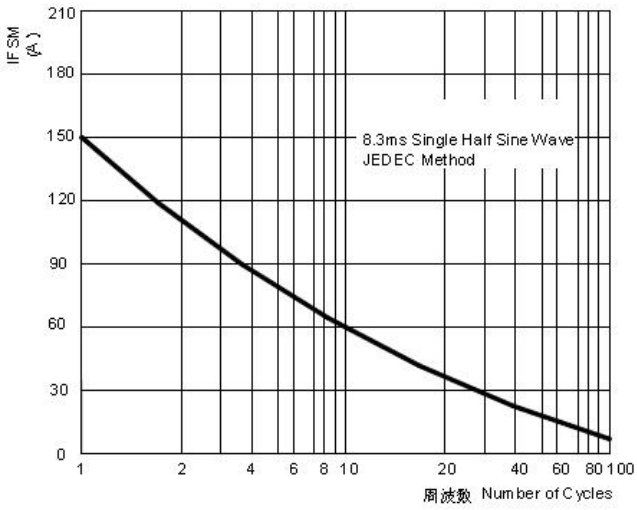


FIG.3TYPICAL FORWARD CHARACTERISTICS

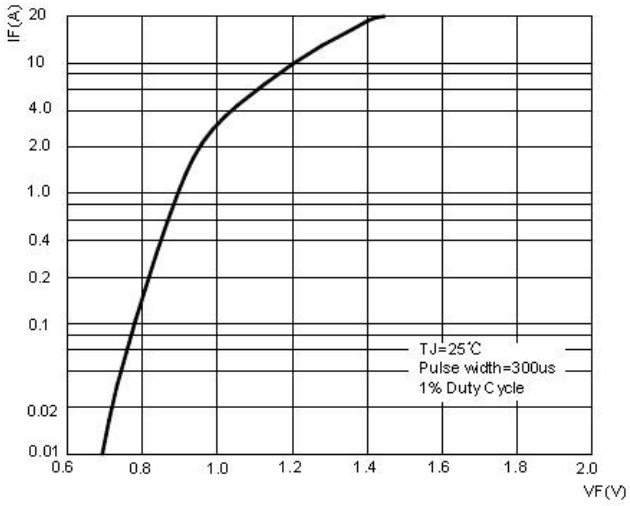
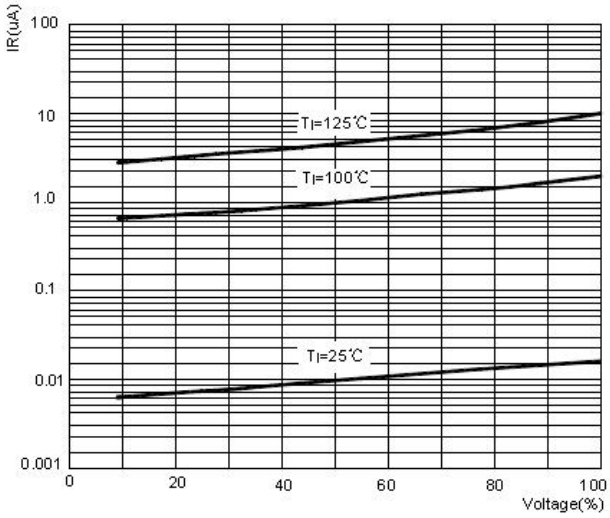


FIG.4TYPICAL REVERSE CHARACTERISTICS



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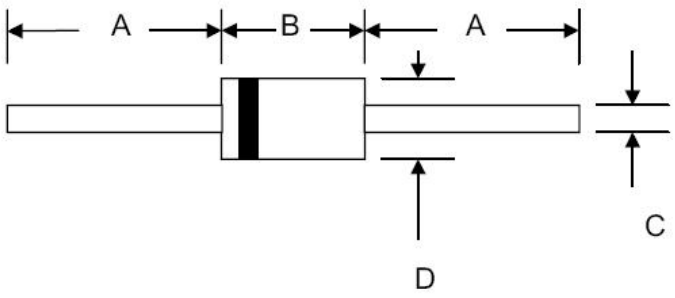
Mechanical Dimensions DO-15



SYMBOL	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	25.4	-	1.000	-
B	5.5	7.62	0.217	0.300
C	0.7	0.9	0.028	0.034
D	2.6	3.6	0.104	0.140

Ordering Information

Device	Package	Shipping
RL251G-RL257G	DO-15 (Pb-Free)	3000pcs /tape

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

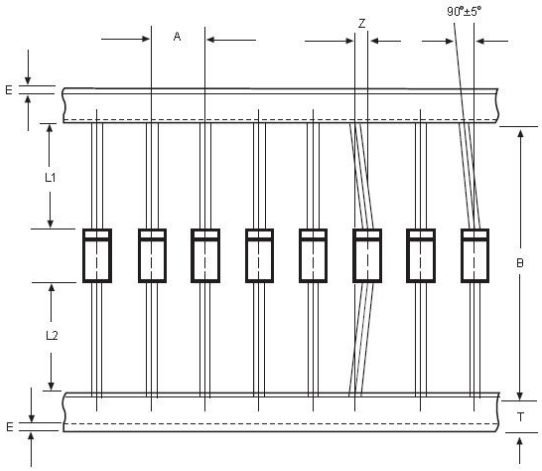
Marking Diagram

Where XXXXX is YYWWL

RL251G = Type Number
SSG = SSG
YY = Year
WW = Week
L = Lot Number

Cautions: Molding resin
Epoxy resin UL:94V-0

Carrier Tape Specification DO-15



SYMBOL	Millimeters	
	Min.	Max.
A	4.50	5.50
B	50.9	53.9
Z	-	1.20
T	5.60	6.40
E	-	0.80
IL1-L2I	-	1.0

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