

RL306G GENERAL PURPOSE PLASTIC RECTIFIER



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: Molded plastic, DO-15
- Terminals: Axial leads, solderable per MIL-STD-750, method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any

Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units
Repetitive Peak Reverse Voltage	V_{RRM}	-	600	V
RMS Voltage	V_{RMS}	-	420	V
DC Blocking Voltage	V_{DC}	-	600	V
Average Forward Current(Per Device)	$I_{F(AV)}$	50% duty cycle @ $T_A = 75^\circ C$ rectangular wave form	3	A
$I^2 t$ Rating for fusing ($t < 8.3ms$)	$I^2 t$	-	60	A ² S
Peak One Cycle Non-Repetitive Surge Current (Per Leg)	I_{FSM}	8.3 ms, half Sine pulse	120	A

Electrical Characteristics:

Characteristics	Symbol	Condition	Typ.	Max.	Units
Forward Voltage Drop(Per Leg)*	V_{F1}	@ 3A, Pulse, $T_J = 25^\circ C$	1.0	1.1	V
Reverse Current(Per Leg)*	I_{R1}	@ $V_R = \text{rated } V_R$ $T_J = 25^\circ C$	0.02	5	μA
	I_{R2}	@ $V_R = \text{rated } V_R$ $T_J = 125^\circ C$	10	100	μA
Junction Capacitance(Per Leg)	C_J	@ $V_R = 4V, T_C = 25^\circ C$ $f_{SIG} = 1MHz$	45	-	pF

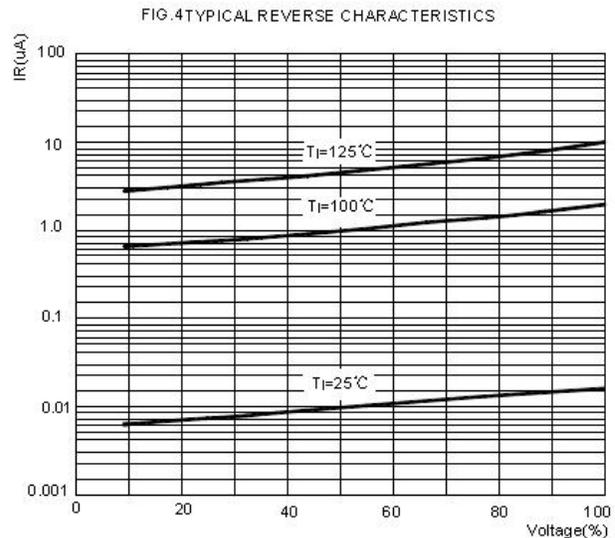
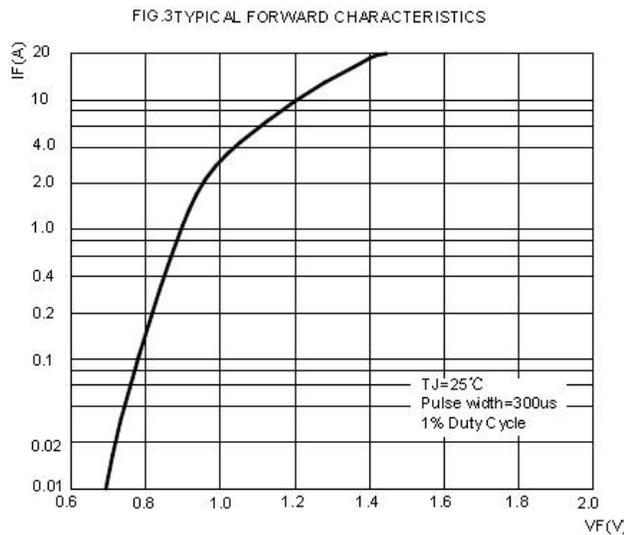
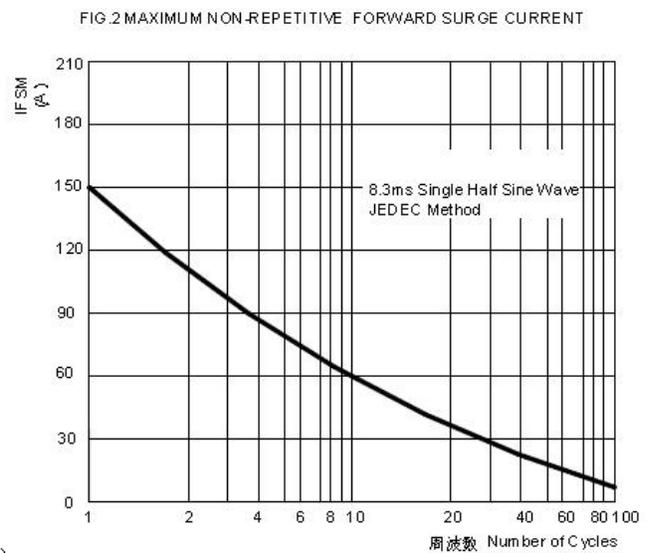
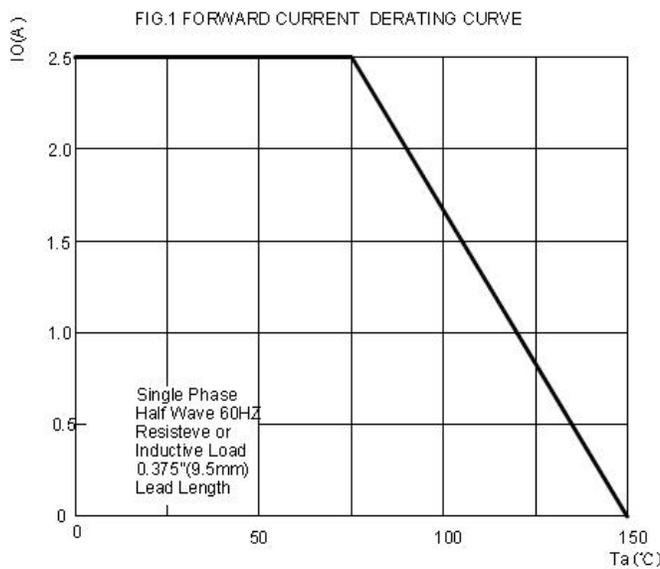
* Pulse width < 300 μs , duty cycle < 2%

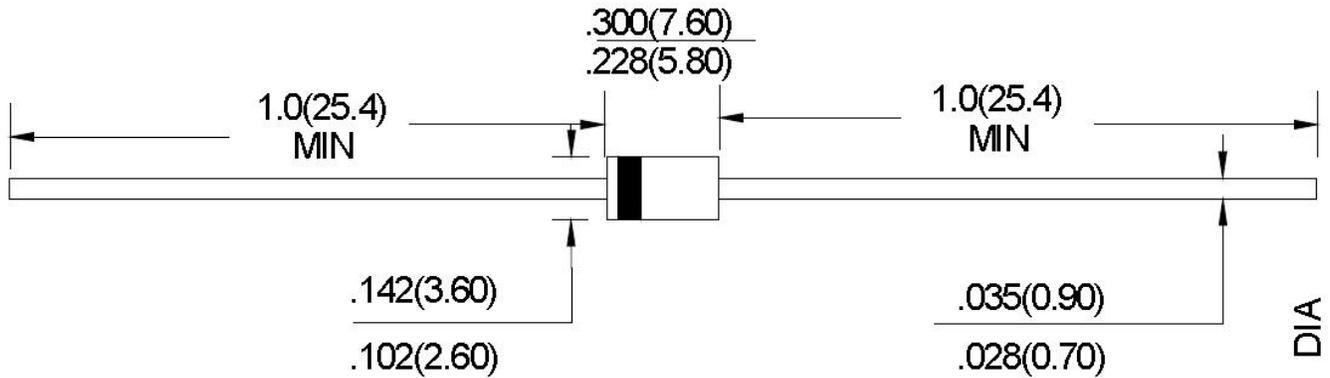
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Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	T_J	-	-55 to +150	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	-	-55 to +150	$^{\circ}\text{C}$
Maximum Thermal Resistance Junction to Ambient	$R_{\theta JA}$	DC operation	45	$^{\circ}\text{C}/\text{W}$
Case Style	DO-15			

Ratings and Characteristics Curves



Mechanical Dimensions DO-15 (Inches/Millimeters)

Ordering Information

Device	Package	Shipping
RL306G	DO-15 (Pb-Free)	3000pcs /tape

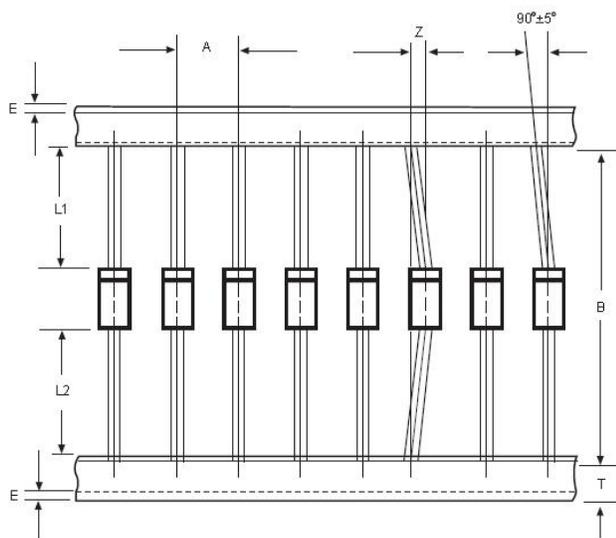
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Marking Diagram


Where XXXXX is YYWWL

RL306G = Part Name
 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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