RECTRON
SEMICONDUCTOR
TECHNICAL SPECIFICATION

RL201G THRU RL207G

GLASS PASSIVATED JUNCTION PLASTIC RECTIFIER

VOLTAGE RANGE 50 to 1000 Volts CURRENT 2.0 Amperes

FEATURES

* Low cost
* Low leakage
* Low forward voltage drop
* High current capability
* Glass passivated junction

MECHANICAL DATA

* Case: Molded plastic
* Epoxy: Device has UL flammability classification 94V-O
* Lead: MIL-STD-202E method 208C guaranteed
* Mounting position: Any
* Weight: 0.38 gram

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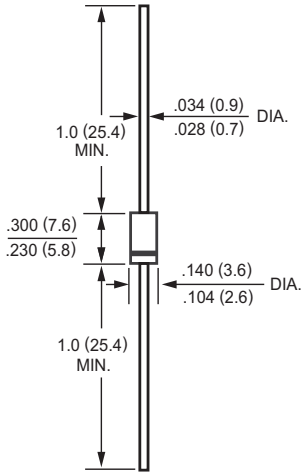

Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

MAXIMUM RATINGS (At T_A = 25°C unless otherwise noted)

RATINGS	SYMBOL	RL201G	RL202G	RL203G	RL204G	RL205G	RL206G	RL207G	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at T_A = 75°C	I_O	2.0							Amps
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	70							Amps
Typical Current Squared Time	I^2t	20.3							A^2/S
Typical Junction Capacitance (Note)	C_J	20							pF
Typical Thermal Resistance	$R_{\theta JA}$	40							°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to + 150							°C

ELECTRICAL CHARACTERISTICS (At T_A = 25°C unless otherwise noted)

CHARACTERISTICS		SYMBOL	RL201G	RL202G	RL203G	RL204G	RL205G	RL206G	RL207G	UNITS
Maximum Instantaneous Forward Voltage at 2.0A DC		V_F	1.0							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@T_A = 25°C	I_R	1.0							uAmps
	@T_A = 100°C		50							
Maximum Full Load Reverse Current Average, Full Cycle .375" (9.5mm) lead length at T_L = 75°C			30							uAmps

NOTES : 1. Measured at 1MHzand applied reverse voltage of 4.0 volts
2. Available in Halogen-free epoxy by adding suffix -HF after the part nbr.

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RATING AND CHARACTERISTIC CURVES (RL201G THRU RL207G)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

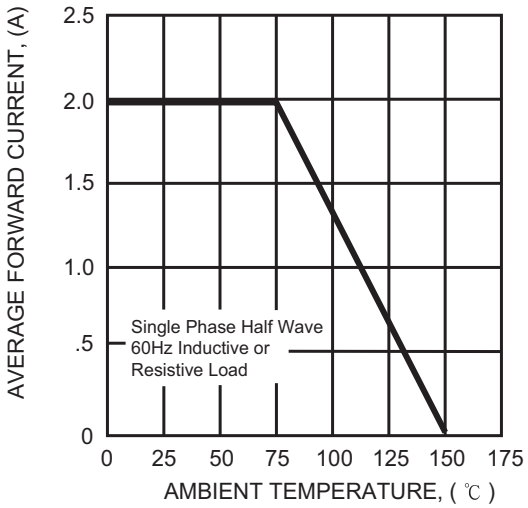


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

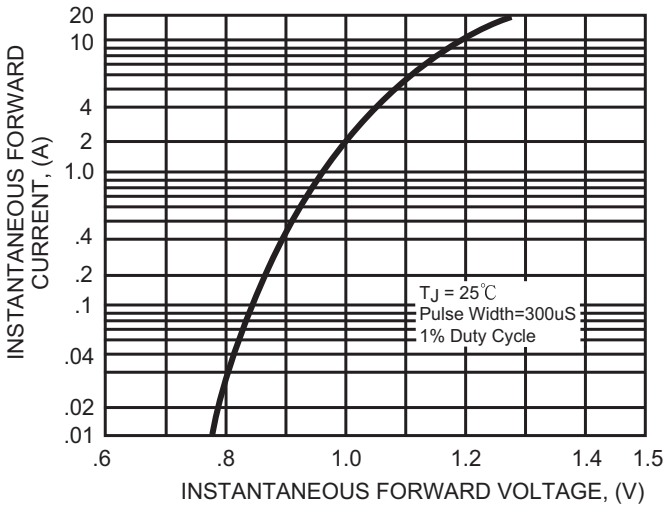


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

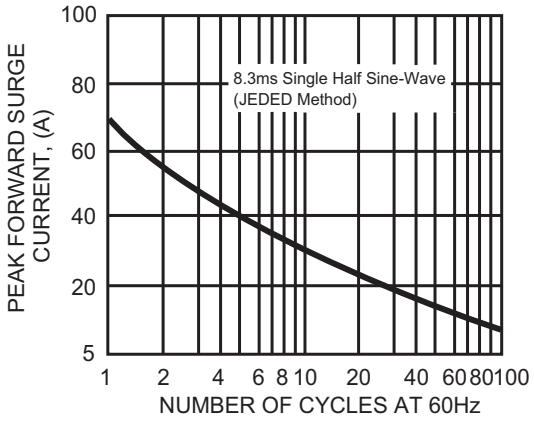
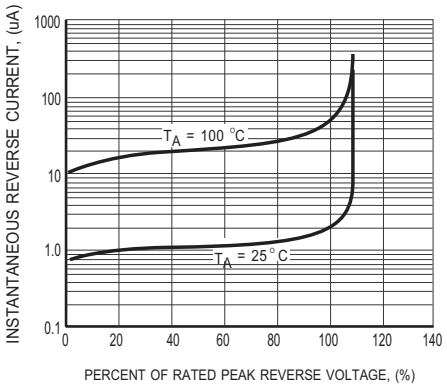
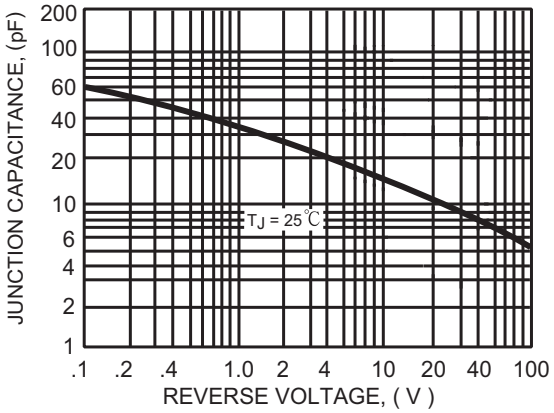


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS



PERCENT OF RATED PEAK REVERSE VOLTAGE, (%)

FIG. 5 - TYPICAL JUNCTION CAPACITANCE



AXIAL LEAD TAPING SPECIFICATIONS FOR RECTIFIERS

Axial lead devices are packed in accordance with EIA standard RS-296-D and specifications given below.

COMPNENT OUTLINE	COMPONENT PITCH A	INNER TAPE PITCH B		CUMULATIVE PITCH TOLERANCE
	±0.5mm (.020")	±0.5mm (.020")	±1.5mm (.059")	
T-1	5.0mm	26.0mm		2.0mm/20pitch
R-1	5.0mm	26.0mm		2.0mm/20pitch
A-405	5.0mm	26.0mm		2.0mm/20pitch
A-405	5.0mm		52.4mm	2.0mm/20pitch
DO-41	5.0mm	26.0mm		2.0mm/20pitch
DO-41	5.0mm		52.4mm	2.0mm/10pitch
DO-15	5.0mm		52.4mm	2.0mm/10pitch
R-3	5.0mm		52.4mm	2.0mm/10pitch
DO-201AD	10.0mm		52.4mm	2.0mm/10pitch
R-6	10.0mm		52.4mm	2.0mm/10pitch

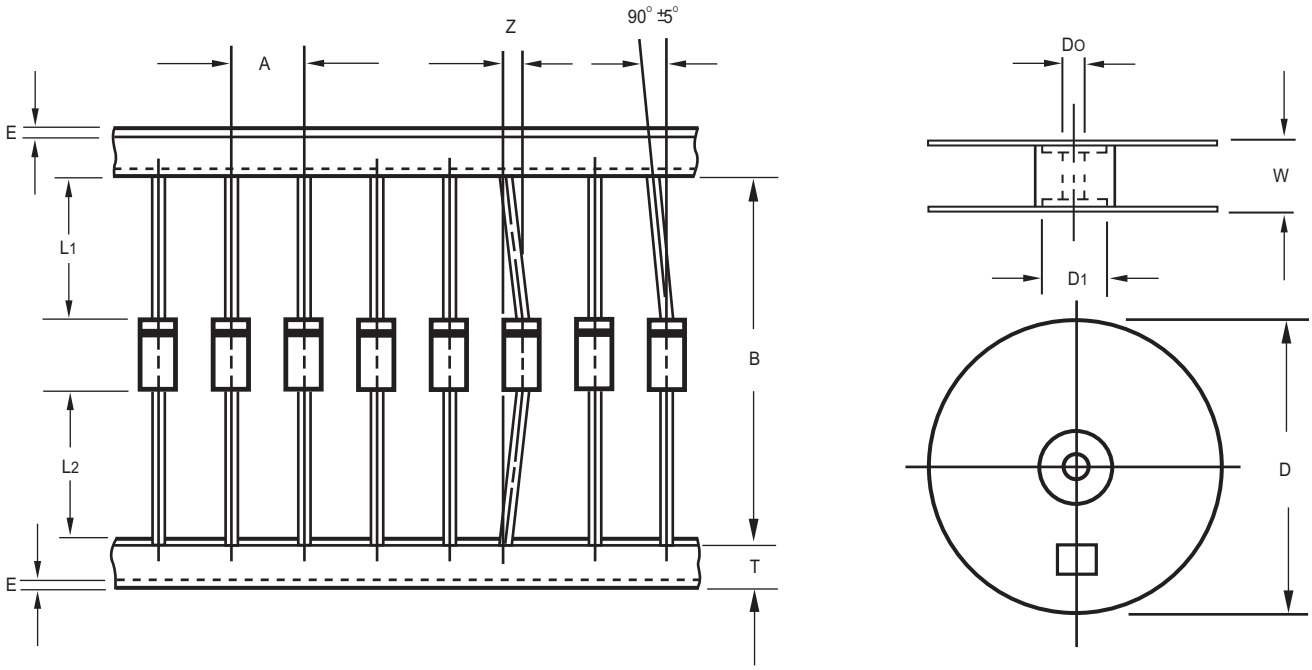


Fig.: Configuration of AXIAL LEAD TAPING

ITEM	SYMBOL	SPECIFICATIONS (mm)	SPECIFICATIONS (inch)
Component alignment	Z	1.2 Max.	0.047 Max.
Tape width	T	6.0± 0.4	0.236± 0.016
Exposed adhesive	E	0.8 Max.	0.032 Max.
Body eccentricity	IL1-L2I	1.0 Max.	0.039 Max.
Reel outside diameter	D	330.0	13.0
Reel inner diameter	D1	85.7± 0.3	3.374± 0.012
Feed hole diameter	DO	30.5± 0.4	1.201± 0.016
Reel width	W	79.0± 1.0	3.110± 0.039

Notes : 1.Each component lead shall be sandwiched between tapes for a minimum of 3.2mm (0.126").
2.The reel width "W" for 26mm taping is 50.0±1.0mm (1.97" ± 0.040").

PACKAGING OF DIODE AND BRIDGE RECTIFIERS

REEL PACK

PACKAGE	packing code	EA PER REEL	COMPONENT SPACE(mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
R-1	-T	5,000	5.0	52	330	355*360*350	20,000	7.25
A-405	-T	5,000	5.0	330	52	355*360*350	20,000	8.13
DO-41	-T	5,000	5.0	52	330	355*360*350	20,000	10.49
DO-15	-T	4,000	5.0	52	330	355*360*350	16,000	10.05
R-3	-T	3,000	5.0	52	330	355*360*350	12,000	10.37
DO-201AD	-T	1,200	9.5	52	330	355*360*350	4,800	8.93
1.5KE	-T	1,200	10.0	52.4	330	355*360*350	4,800	8.05
R-6	-T	500	9.5	52	330	355*360*350	2,000	7.29
SMA	-T	1,500	---	---	178	465*220*260	48,000	8.40
SMA	-W	5,000	---	---	330	355*360*350	80,000	14.20
MELF	-T	1,500	---	---	178	465*220*260	48,000	11.14
MELF	-W	5,000	---	---	330	355*360*350	80,000	19.60
DB-S	-T	1,000	---	---	330	355*360*350	8,000	9.85
MD	-T	500	---	---	178	465*220*260	16,000	---
MD	-W	3,000	---	---	330	355*360*350	48,000	15.50
SMB	-T	500	---	---	178	465*220*260	16,000	---
SMB	-W	3,000	---	---	330	355*360*350	48,000	13.90
SMC	-T	500	---	---	176	465*220*260	12,000	---
SMC	-W	3,000	---	---	330	355*360*350	24,000	11.50
D2PAK	-W	800	---	---	330	355*360*350	6,400	---

AMMO PACK

PACKAGE	PACKING CODE	REEL (EA)	COMPONENT SPACE(mm)	TAPE SPACE (mm)	BOX SIZE (mm)	CARTON SIZE(mm)	CARTON (EA)	GROSS WEIGHT (Kg)
R-1	-F	3,000	5.0	52	255*73*100	402*270*225	30,000	8.5
A-405	-F	3,000	5.0	52	255*73*100	402*270*225	30,000	9.6
DO-41	-F	3,000	5.0	52	255*73*100	402*270*225	30,000	13.0
DO-15	-F	1,500	5.0	52	255*73*100	402*270*225	15,000	8.8
R-3	-F	1,500	5.0	52	255*73*100	402*270*225	15,000	11.2
DO-201AD	-F	600	9.5	52	255*73*100	402*270*225	6,000	9.9
R-6	-F	300	9.5	52	255*73*100	402*270*225	3,000	8.7
R-1	-E	3,000	5.0	26	256*46*94	347*320*220	42,000	8.35
A-405	-E	3,000	5.0	26	256*46*94	347*320*220	42,000	9.61
DO-41	-E	3,000	5.0	26	256*46*94	347*320*220	42,000	12.41
R-1	-J	3,000	12.7	---	328*170*42	355*360*350	42,000	13.93
R-1	-I	2,000	12.7	---	328*170*42	355*360*350	28,000	9.31
A405	-N	2,000	12.7	---	328*170*42	355*360*350	28,000	11.41

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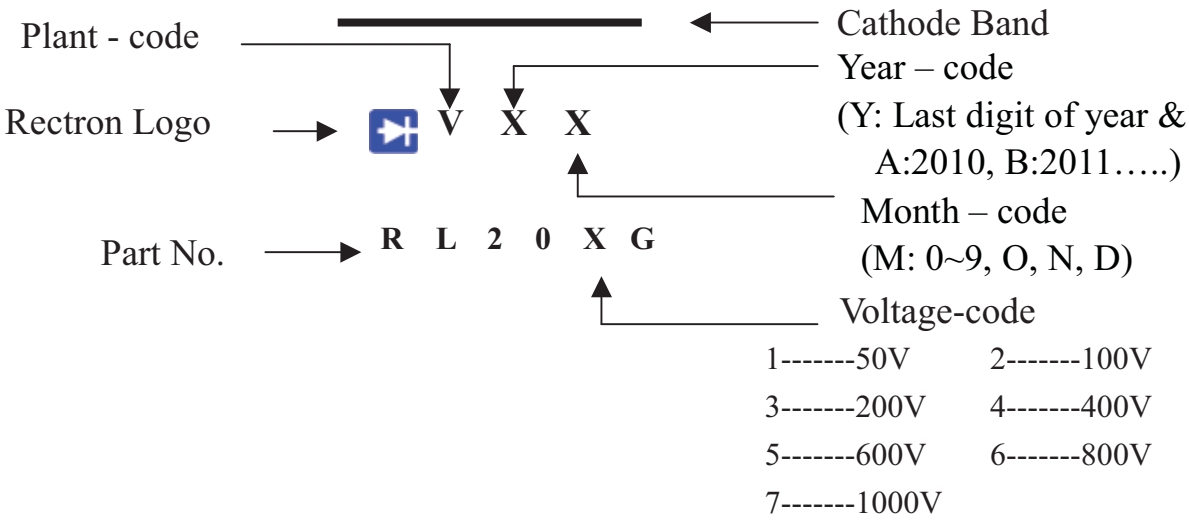
Attachment information about RL20XG

1. Internal Circuit

2. Marking on the body



3. The net weight 380mg / pcs

4. Taping packaging specification

4.1 All polarized components must be oriented in one direction.

4.2 For diode, at least one side of the cathode lead tape should be red, and anode lead tape should be white.

4.3 **A minimum 300 mm (12”) leader shall be provided at each end of the reel.**

4.4 Staples shall not be used for splicing. Splice length shall be 4.0 inches minimum and shall not be misaligned more than 0.8mm.

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Attachment information about RL20XG

5. Items marked on the reel box and carton

5.1 On the reel (for –T)

CUSTOMER
TYPE
QUANTITY
LOT NO.
Q.A.
REMARK

5.2 On the box (for –E & -F)

TYPE
QUANTITY
LOT NO.
Q.A.

5.3 On the carton

CUSTOMER
TYPE
QUANTITY
LOT NO.
REMARK

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