

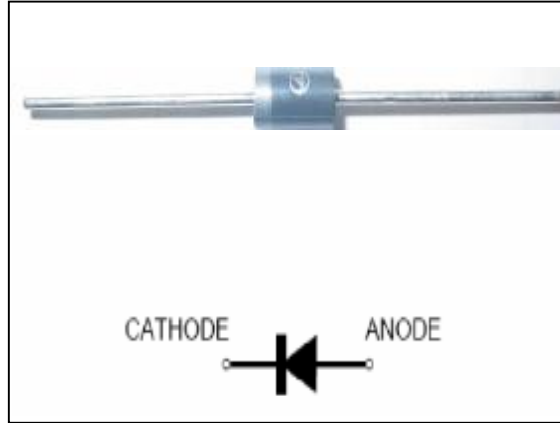
# LUR605 thru LUR660

## Glass Passivated Junction Ultra Fast Rectifiers

### Reverse Voltage 50 to 600V Forward Current 6.0A

#### FEATURES

- \* Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- \* High temperature metallurgically bonded construction
- \* Cavity-free glass passivated junction
- \* Capable of meeting environmental standards of MIL-S-19500
- \* For use in high frequency rectifier circuits
- \* Fast switching for high efficiency
- \* High temperature soldering guaranteed: 260°C/10 seconds
- \* 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension



We declare that the material of product compliance with ROHS requirements

#### Mechanical Data

**Case:** JEDEC R-6, molded plastic over glass die  
**Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026  
**Polarity:** Color band denotes cathode end  
**Mounting Position:** Any  
**Weight:** 0.042 oz., 1.19 g  
**Handling precaution:** None

#### 1. Maximum & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter Symbol	symbol	LUR 605	LUR 610	LUR 615	LUR 620	LUR 640	LUR 650	LUR 660	Unit
Marking spec		LUR 605	LUR 610	LUR 615	LUR 620	LUR 640	LUR 650	LUR 660	
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	150	200	400	500	600	V
Maximum RMS voltage	$V_{RMS}$	35	70	105	140	280	350	420	V
Maximum DC blocking voltage	$V_{DC}$	50	100	150	200	400	500	600	V
Maximum average forward rectified current 0.375" (9.5mm) lead length	$I_{F(AV)}$	6.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	165							A
Maximum full load reverse current, full cycle average, 0.375" (9.5mm) lead lengths at $T_A = 75^\circ\text{C}$	$I_{R(AV)}$	100							$\mu\text{A}$
Typical thermal resistance (Note 2)	$R_{\theta JA}$	20							$^\circ\text{C/W}$
Operating junction and storage temperature range	$T_J, T_{STG}$	-65 to +150							$^\circ\text{C}$

#### Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter Symbol	symbol	LUR 605	LUR 610	LUR 615	LUR 620	LUR 640	LUR 650	LUR 660	Unit	
Maximum Instantaneous Forward Voltage (IF = 6.0 Amps, TJ = 150°C) (IF = 6.0 Amps, TJ = 25°C)	$V_F$	0.895 0.930			1.05 1.25		1.13 1.50		V	
Maximum full load reverse current, full cycle average, 0.375" (9.5mm) lead lengths (Rated dc Voltage, TJ = 150°C) (Rated dc Voltage, TJ = 25°C)	$I_R$	200 5.0								$\mu\text{A}$
Typical reverse recovery time (Note 1)	$t_{rr}$	35			50				ns	
Typical junction capacitance at 4.0V, 1MHz	$C_J$	50								PF

#### NOTES:

1.  $I_F = 0.5\text{A}$ ,  $I_R = 1.0\text{A}$ ,  $I_{RR} = 0.25\text{A}$
2. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

# LUR605 thru LUR660

## 2. Ratings and Characteristic Curves (TA = 25°C unless otherwise noted)

Fig. 1 - Forward Current Derating Curve

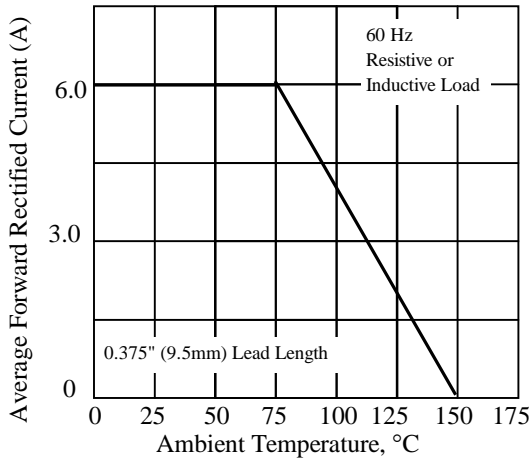


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

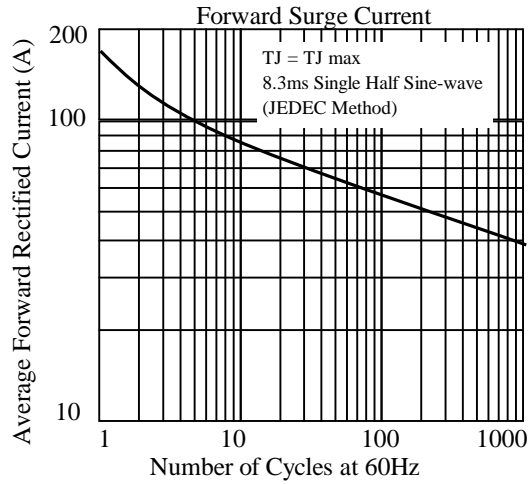


Fig. 3 - Typical Instantaneous Forward Characteristics

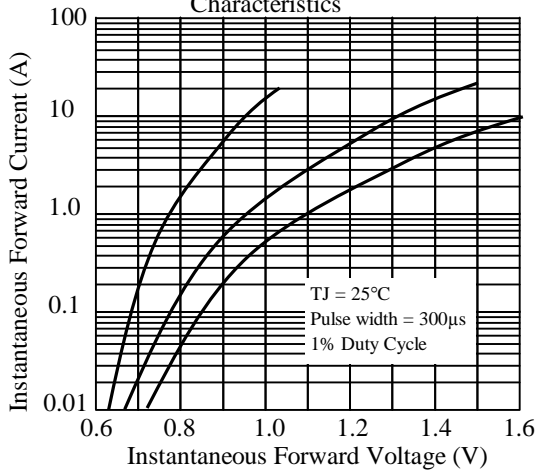


Fig. 4 - Typical Reverse Characteristics

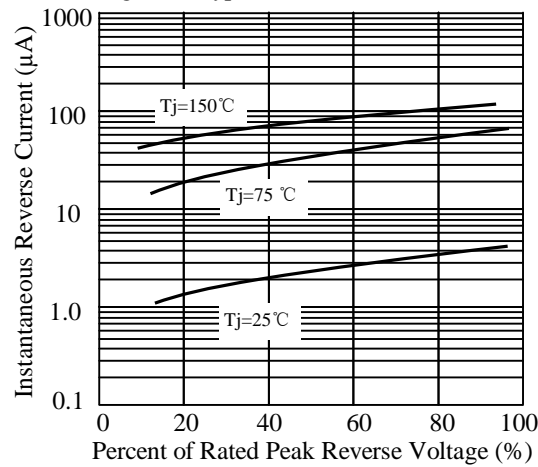


Fig. 5 - typical transient thermal impedance

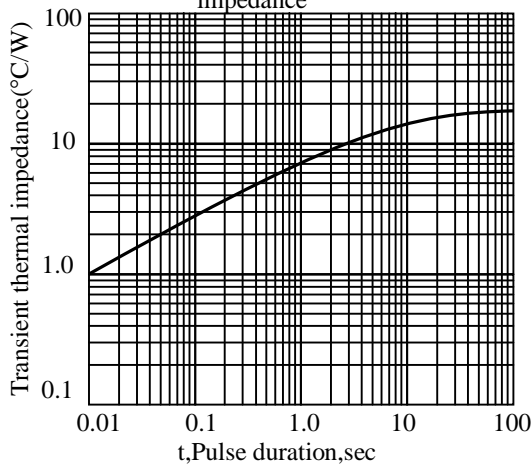
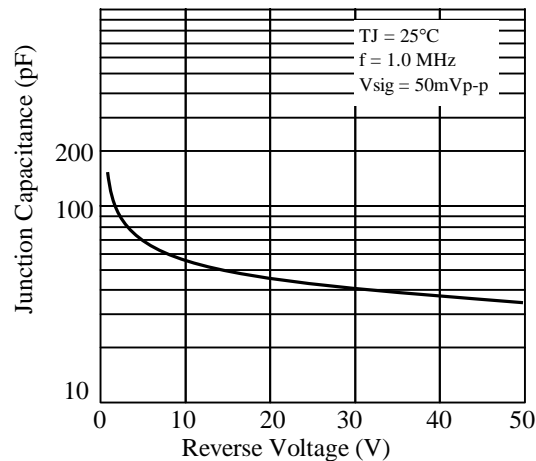
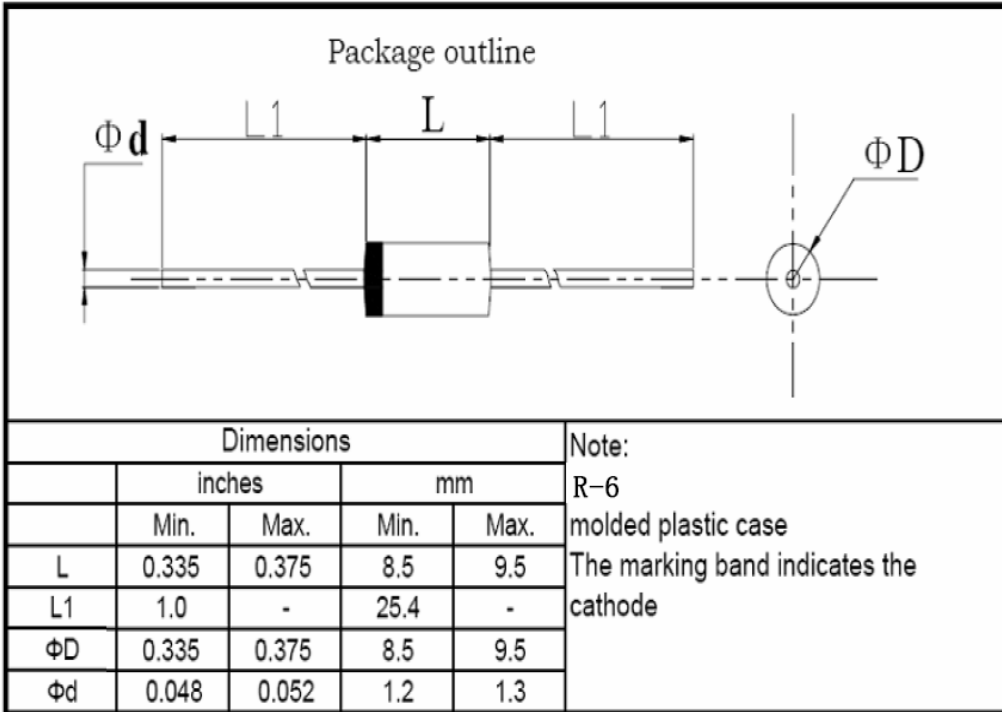


Fig. 6 - Typical Junction Capacitance



## LUR605 thru LUR660

### 3. dimension:

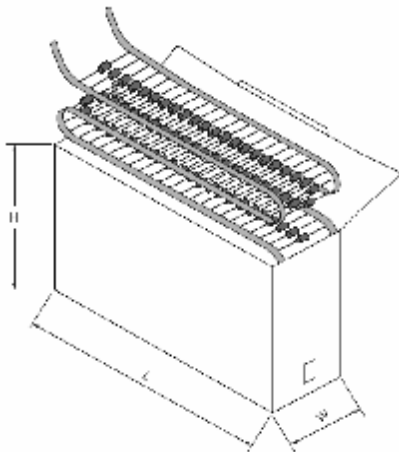


标题:	文件编号: WI-250
	第 4 版 第 0 次修改
	第 1 页

塑封生产线轴向产品包装规范

1 弹带盒装 ammo and box

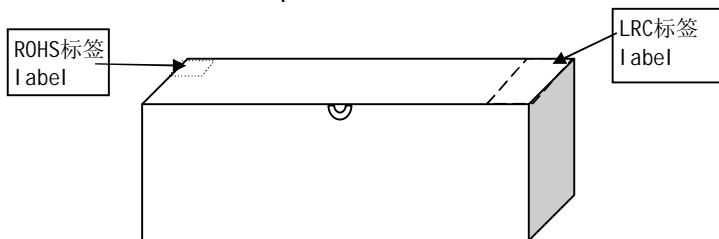
1.1. 弹带盒规格 ammo spec.



单位: mm

	L	W	H
T52	262±2	76±2	90±2

1.2 弹带内盒要求 inner box spec.



标题: <b>塑封生产线轴向产品包装规范</b>	文件编号: WI-250
	第 4 版 第 0 次修改
	第 2 页

1.4 标签要求 label spec.

1.4.1 LRC标签 LRC label

成型 FORMING \*\*\*\*\* ← 成型规格forming spec.

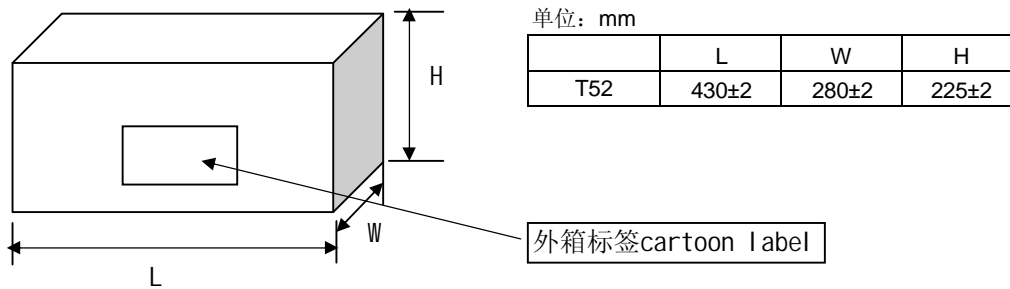
型号 TYPE \*\*\*\*\* ← LRC产品型号 type

重复峰压 (V) PRV (V)	****	← 产品重复峰压值 peak repetitive voltage
额定电流 (A) I <sub>o</sub> (A)	**	← 产品额定电流值 average output current
数量 (只) QTY (pcs)	****	← 产品数量 quantity
检验员 CHECKER	02	
日期: DATE:	*****	← 产品生产日期 date

1.4.2环保标签 environmental protection label



2.外箱规格 carton spec.



3 按以上包装方式, 编带数量和外包装箱产品数量: typing and carton spec.

	塑封外型
	R-6
每根编带数量 quantity/ammo	0.4K
外箱数量 (T52编带) quantity/cartoon	4.0K

标题:

塑封生产线轴向产品包装规范

文件编号: WI-250

第 4 版 第 0 次修改

第 3 页

4 编带规格 brede spec



尺寸代号	编带尺寸 typing dimension
	52/tape#
W	52 -1.0/+2.0
P	20±0.5
L1-L2	<1.2
H	6±1.0
Z	<1.0
R	<1.0
T	>3.5

1. 红白编带厚度为0.05mm；两种胶带各自之间无明显色差；编带要求均为胶带。  
The typing thickness is 0.05mm and color is obvious difference
2. 两端引带20~40cm. Typing lead over 20~40cm
3. 红色编带一端为二极管“负极”；白色编带一端为二极管“正极”。  
red color is cathode ,white color is anode
4. 无卤 green epoxy compound (无卤产品才贴HF only)

Green

## LUR605 thru LUR660

### 4、版式次更新记录

版次	更新记录	更新作者	更新日期
1	第一版	周杰	2010-4-30
2	增加包装规范	周杰	2011-10-10