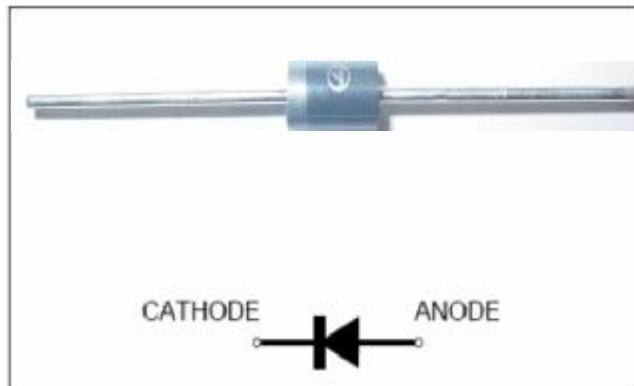


# 1N5817 thru 1N5819

**Schottky Barrier Rectifiers**  
**Reverse Voltage 20 to 40V Forward Current 1.0A**

## Feature & Dimensions

- \* Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- \* Low power loss, high efficiency
- \* For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- \* Guarding for over voltage protection
- \* High temperature soldering guaranteed: 260°C/10 seconds at terminals



## Mechanical Data

**Case:** JEDEC DO-41, 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:** 0.011 oz., 0.284 g

**Handling precaution:** None

We declare that the material of product compliance with ROHS requirements

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

Parameter Symbol	symbol	1N5817	1N5818	1N5819	Unit
device marking code		1N5817	1N5818	1N5819	
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	20	30	40	V
Maximum RSM voltage	V <sub>RSM</sub>	14	21	28	V
Maximum DC blocking voltage	V <sub>DC</sub>	20	30	40	V
Maximum average forward rectified current 0.375" (9.5mm) lead length (See fig. 1)	I <sub>F(AV)</sub>		1.0		A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>		25		A
Typical thermal resistance (Note 1)	R <sub>θJA</sub>		50		°C/W
Operating temperature range	T <sub>J</sub>		-40 to +150		°C
storage temperature range	T <sub>TG</sub>		-40 to +175		°C

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

Parameter Symbol	symbol	1N5817	1N5818	1N5819	Unit
Maximum instantaneous forward voltage at 1.0A	V <sub>F</sub>	0.45	0.55		V
Maximum DC reverse current TA = 25°C at rated DC blocking voltage TA = 100°C	I <sub>R</sub>		1.0 10		mA
Typical junction capacitance at 4.0V, 1MHz	C <sub>J</sub>		110		PF

### NOTES:

- Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

# 1N5817 thru 1N5819

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

Fig. 1 - Forward Current Derating Curve

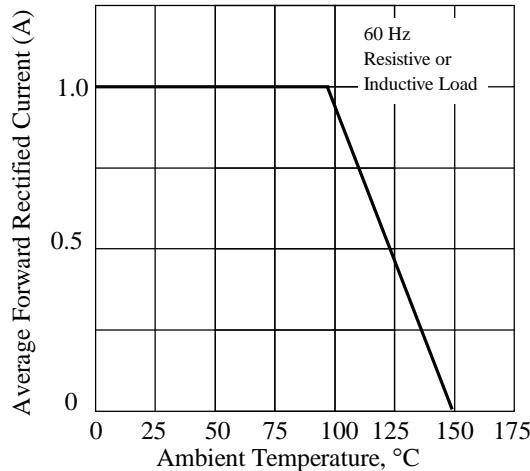


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

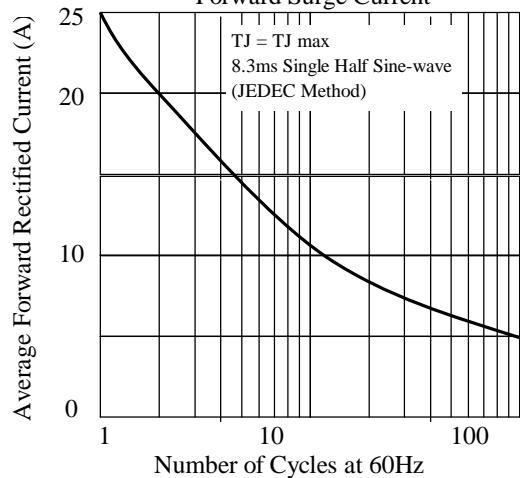


Fig. 3. - Typical Instantaneous Forward Characteristics

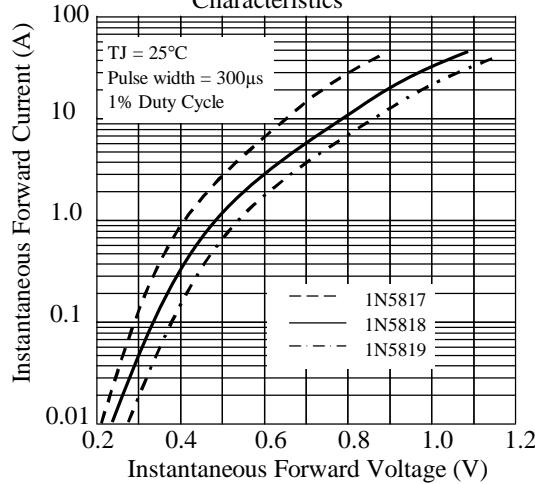


Fig 4. - Typical Reverse Characteristics

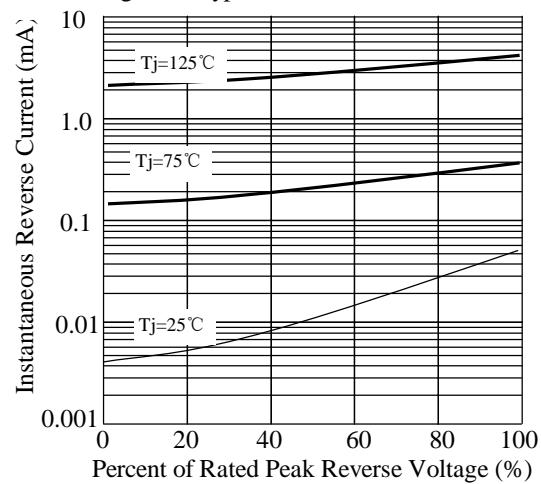


Fig 5. - typical transient thermal impedance

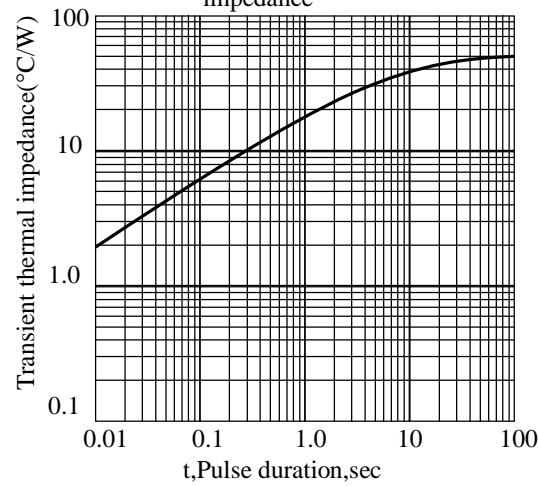
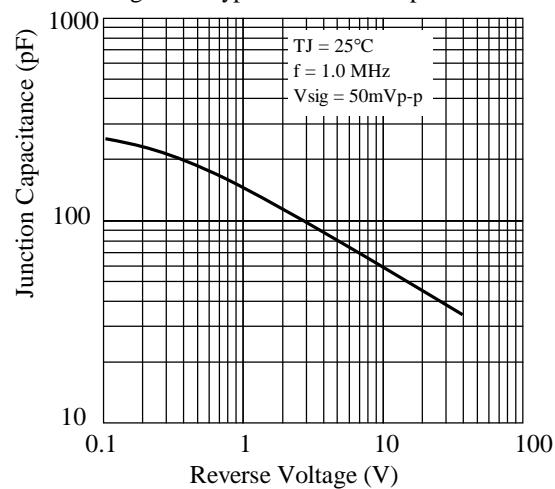


Fig 6. - Typical Junction Capacitance



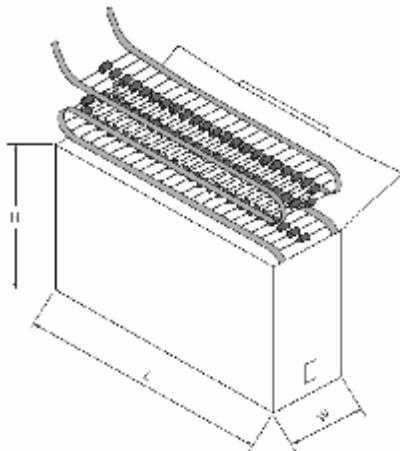
**1N5817 thru 1N5819****3. dimension:**

Package outline					
					Note: DO-41 molded plastic case The marking band indicates the cathode
	Dimensions inches		mm		
L	Min.	Max.	Min.	Max.	
L1	0.166	0.205	4.2	5.2	
L1	1.0	-	25.4	-	
ΦD	0.080	0.107	2.0	2.7	
Φd	0.028	0.030	0.7	0.8	

标题:	文件编号: WI-250
塑封生产线轴向产品包装规范	第 4 版 第 0 次修改
	第 1 页

1 弹带盒装 ammo and box

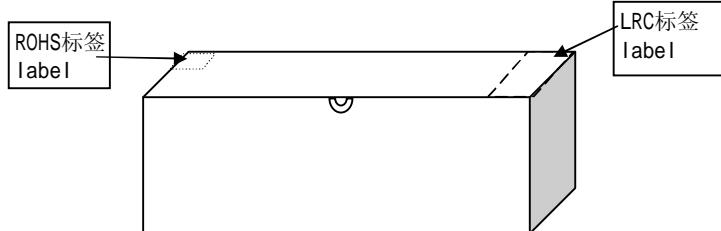
#### 1.1. 弹带盒规格 ammo spec.



单位: mm

	L	W	H
T52	262±2	76±2	90±2
T42	262±2	64±2	90±2
T26	250±3	45±3	95±3

#### 1.2 弹带内盒要求 inner box spec.



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 2 页

#### 1.4 标签要求 label spec.

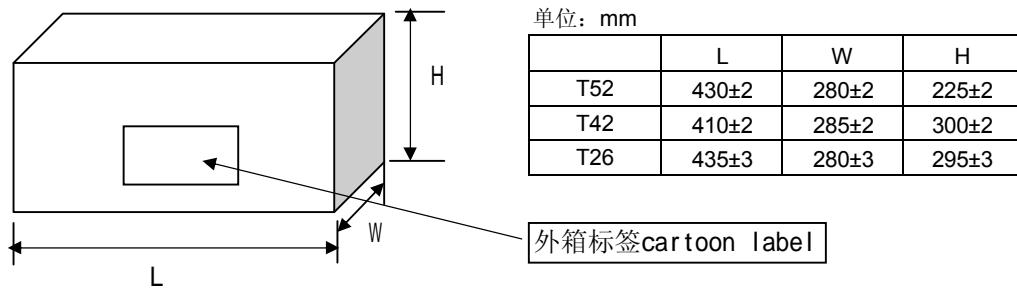
##### 1.4.1 LRC标签 LRC label

成 型	*****	成型规格 forming spec.
FORMING		
型 号	*****	LRC产品型号 type
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) Q'TY (pcs) <i>QC单</i>	****	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 cartoon spec.

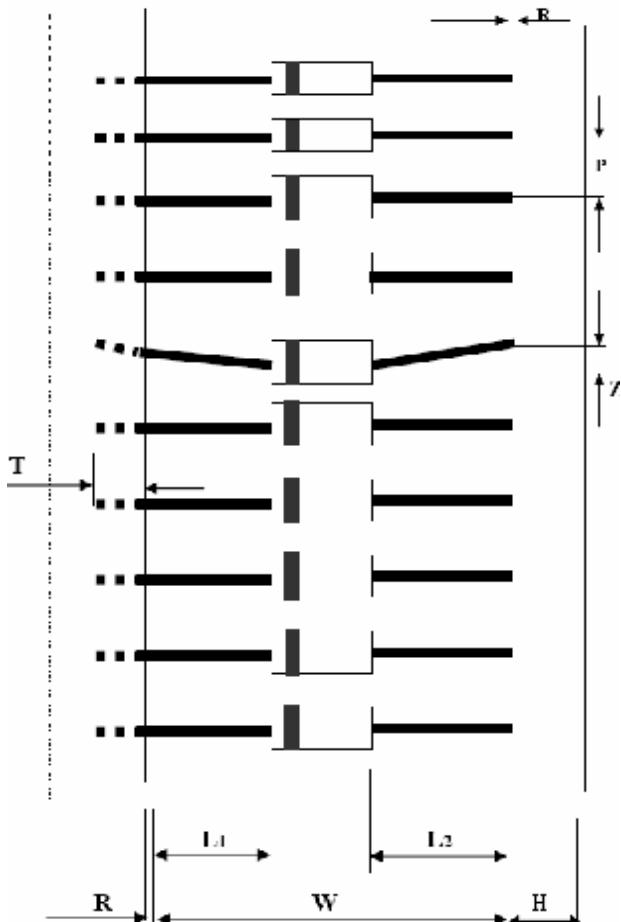


#### 3 按以上包装方式, 编带数量和外包装箱产品数量: typing and cartoon spec.

	塑封外型			
	A-405 & DO-41 & R-1	R-3	DO-15	DO-201AD
每根编带数量 quantity/ammo	3K	1.8K	2K(T52) 1.8K(T26)	0.8K
外箱数量 (T52编带) quantity/cartoon	30K	18K	20K	8.0K
外箱数量 (T26编带) quantity/cartoon	60K	36K	36K	-
外箱数量 (T42编带) quantity/cartoon	54K	32.4K	36K	-

标题:	文件编号: WI-250
塑封生产线轴向产品包装规范	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					
	26/tape	35/tape	40/tape	42/tape	52/tape	52/tape#
W	26 0.0/+1.6	35 -1.0/+0.5	40 -1.0/+0.5	42 -1.0/+1.0	52 -1.0/+2.0	52 -1.0/+2.0
P	5±0.5	5±0.5	5±0.5	5±0.5	5±0.5	10±0.5
L1-L2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
H	6±1.0	6±1.0	6±1.0	6±1.0	6±1.0	6±1.0
Z	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
R	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
T	>3.5	>3.5	>3.5	>3.5	>3.5	>3.5

注: 52编带# 为DO-201AD编带规格 "52编带#" just for D0-201AD

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

## 1N5817 thru 1N5819

### 4. Update Record

版次	更新记录	更新作者	更新日期
1	第一版	余波	2010.5.26
2	调整结温为150度	周杰	2010.09.24
3	增加包装规范；调整编带L1-L2为小于1.0mm	周杰	2011.08.12

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