

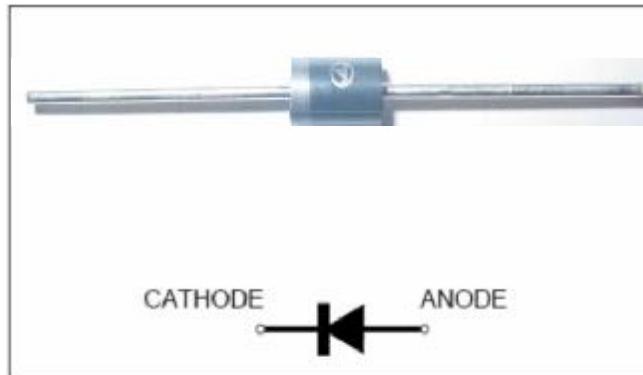
# HF1200G & HF1600G

## Fast Switching High Voltage Rectifiers

### Reverse Voltage 1200V & 1600 Forward Current 1.0A

#### FEATURES

- \* Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- \* Low leakage
- \* Low forward voltage drop
- \* High current capability
- \* Easily cleaned with Freon, Alcohol and similar solvents
- \* High temperature metallurgically bonded construction
- \* GPP chip
- \* Capable of meeting environmental standards of MIL-S-19500
- \* High temperature soldering guaranteed: 260°C/10 seconds



We declare that the material of product compliance with ROHS requirements

#### Mechanical Data

**Case:** JEDEC DO-41, molded plastic body

**Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026

**Polarity:** Color band denotes cathode end

**Mounting Position:** Any

**Weight:** 0.011 oz., 0.284 g

**Handling precaution:** None

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

Parameter Symbol	symbol	HF1200G	HF1600G	Unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	1200	1600	V
Maximum RSM voltage	$V_{RSM}$	840	1120	V
Maximum DC blocking voltage	$V_{DC}$	1200	1600	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A = 75^\circ\text{C}$	$IF(AV)$	1		A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	30		A
Maximum full load reverse current, full cycle average, 0.375"(9.5mm) lead lengths at $T_A = 75^\circ\text{C}$	$IR(AV)$	100		$\mu\text{A}$
Typical thermal resistance (Note 2)	$R_{\theta JA}$	55		$^\circ\text{C}/\text{W}$
Operating junction and storage temperature range	$T_J, T_{STG}$	−50 to +150		°C

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

Parameter Symbol	symbol	HF1200G	HF1600G	Unit
Maximum instantaneous forward voltage at 0.5A	$V_F$	3.4		V
Maximum DC reverse current $T_A = 25^\circ\text{C}$ at rated DC blocking voltage $T_A = 125^\circ\text{C}$	$IR$	5.0 100		$\mu\text{A}$
Maximum reverse recovery time (Note 1)	$TRR$	75		ns
Typical junction capacitance at 4.0V, 1MHz	$C_J$	15		PF

#### NOTES:

1.  $IF = 0.5\text{A}$ ,  $IR = 1.0\text{A}$ ,  $IRR = 0.25\text{A}$

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

# HF1200G & HF1600G

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

Fig. 1 – Forward Current Derating Curve

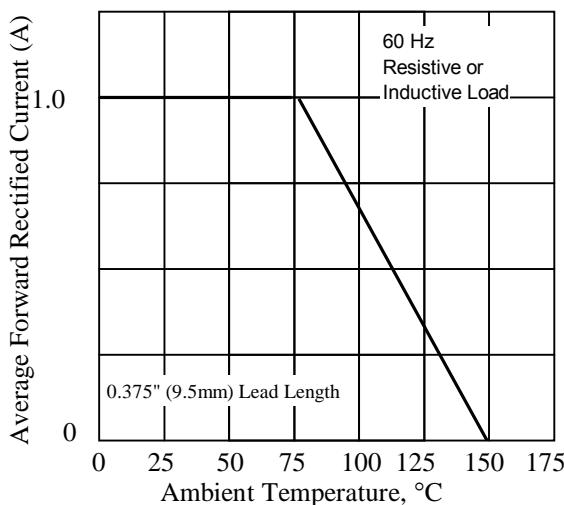


Fig. 2 – Maximum Non-repetitive Peak Forward Surge Current

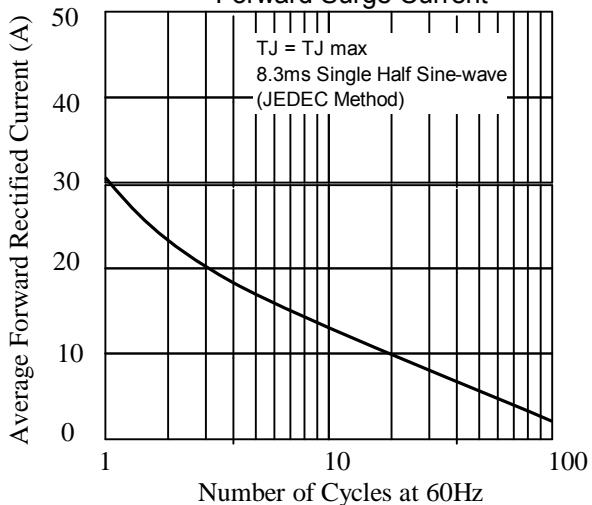


Fig 3. – Typical Instantaneous Forward Characteristics

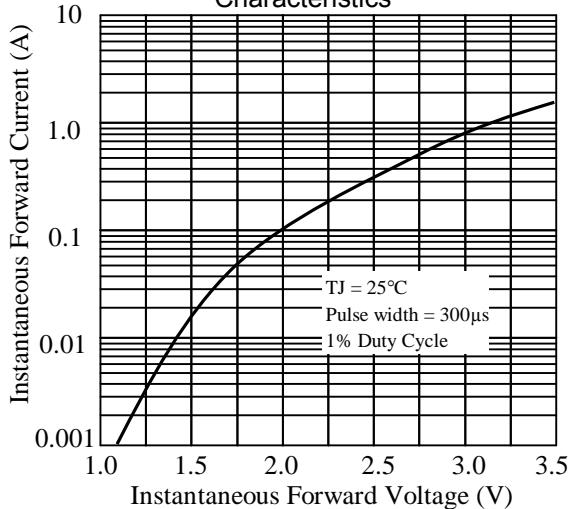


Fig 4. – Typical Reverse Characteristics

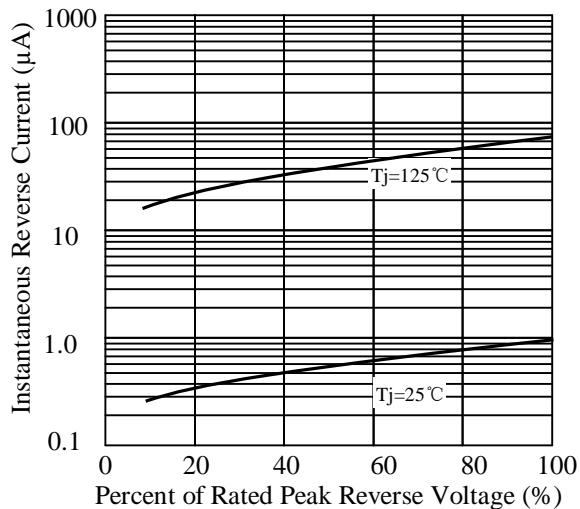


Fig 5. –typical transient thermal impedance

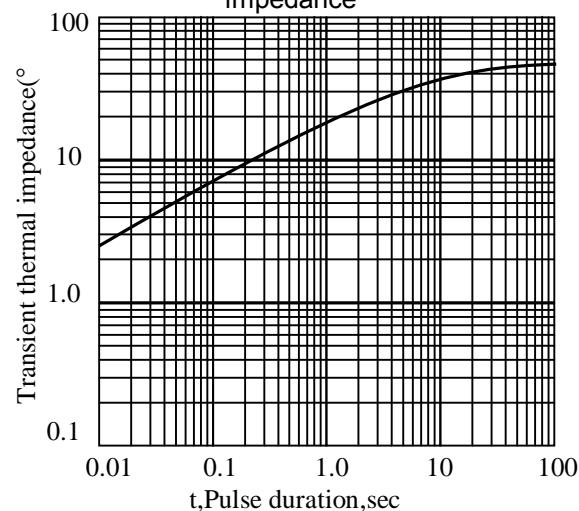
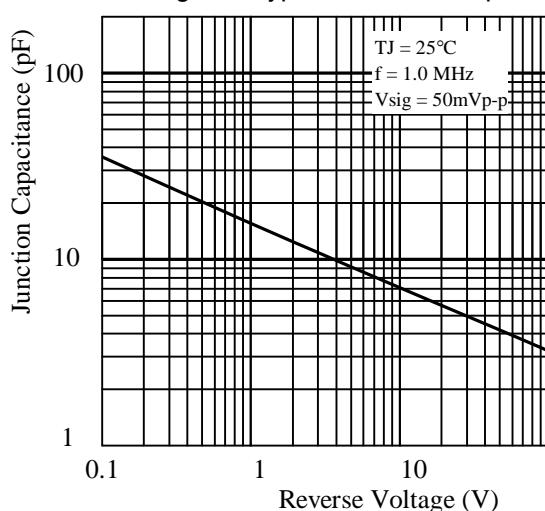


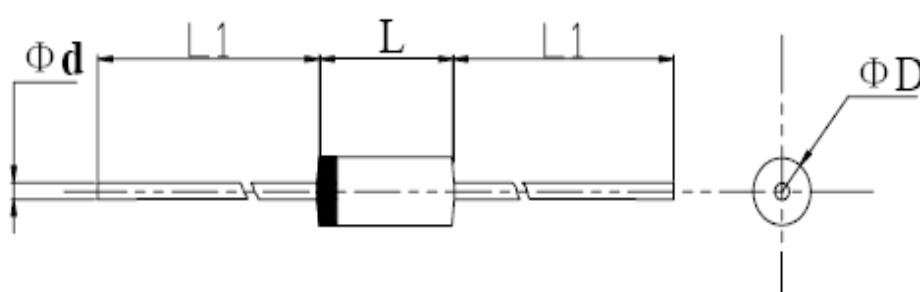
Fig 6. – Typical Junction Capacitance



## HF1200G & HF1600G

### 3. dimension:

Package outline

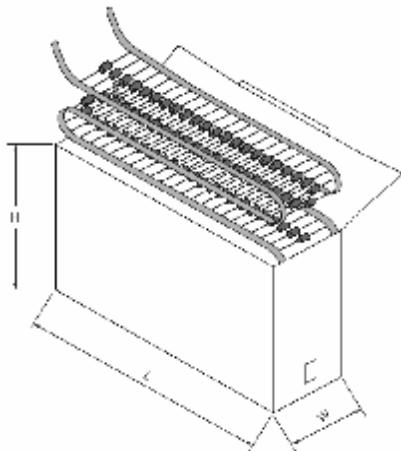


Dimensions					Note: DO-41 molded plastic case The marking band indicates the cathode
	inches		mm		
	Min.	Max.	Min.	Max.	
L	0.166	0.205	4.2	5.2	
L1	0.866	-	22	-	
$\Phi D$	0.080	0.107	2.0	2.7	
$\Phi d$	0.028	0.034	0.7	0.9	

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

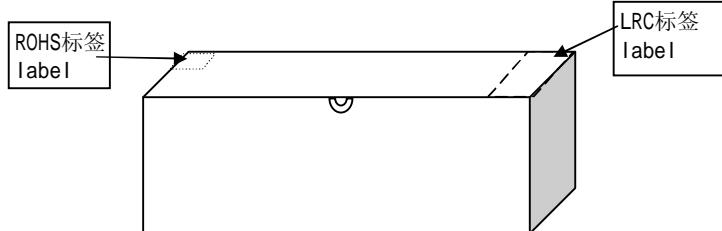
#### 1.1. 弹带盒规格 ammo spec.



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.

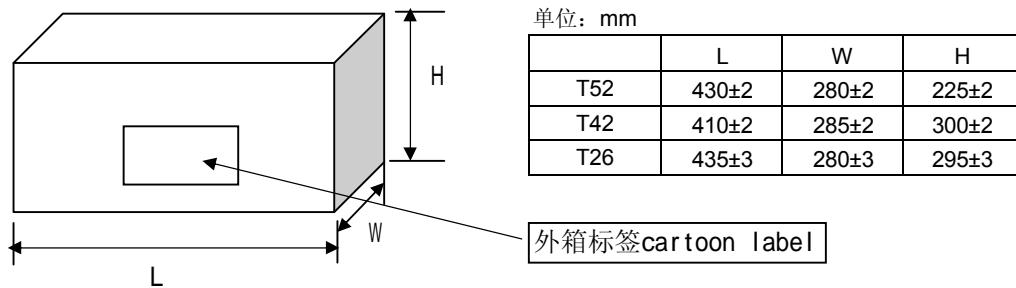
##### 1.4.1 LRC标签 LRC label

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.

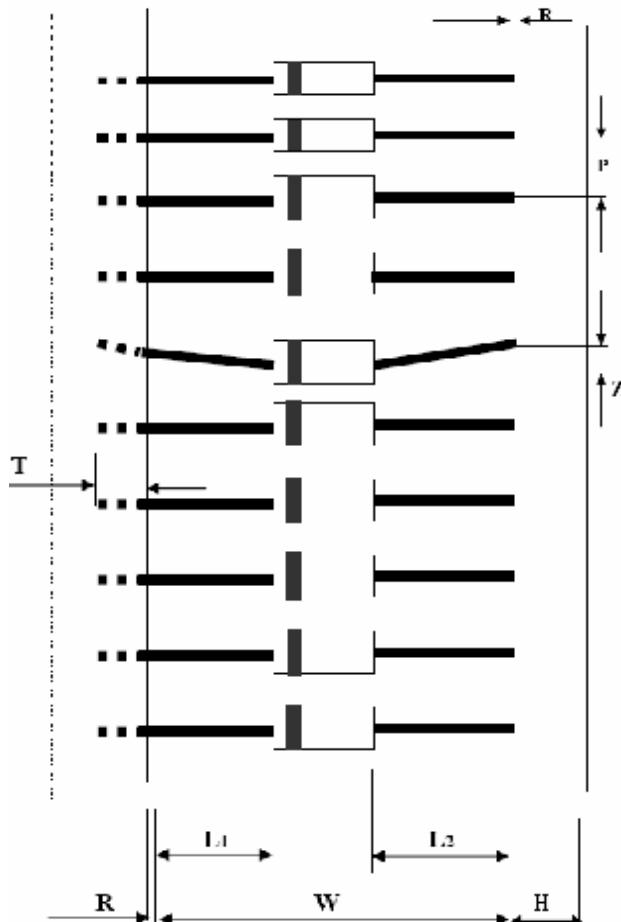


#### 3 按以上包装方式, 编带数量和外包装箱产品数量: typing and cartoon spec.

	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

## HF1200G & HF1600G

### 4. Update Record

版次	更新记录	更新作者	更新日期
1	第一版	周杰	2010.06.17
2	增加包装规范	周杰	2011.08.15

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