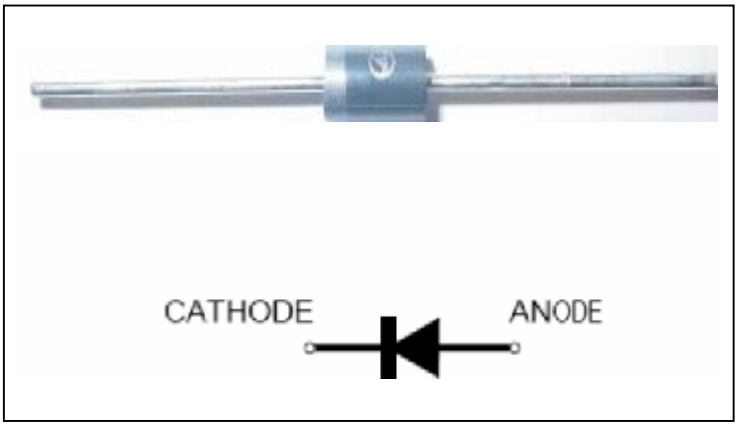
SF51G thru SF58G

Glass Passivated Junction Ultra Fast Rectifiers
Reverse Voltage 50 to 600V Forward Current 5.0A

FEATURES

* Plastic package has Underwriters Laboratory Flammability Classification 94V-0
* High temperature metallurgically bonded construction
* Glass passivated chip
* 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 DO-201AD, molded plastic

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

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.038 oz., 1.03 g

Handling precautin:None

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

Parameter Symbol	symbol	SF51G	SF52G	SF53G	SF54G	SF55G	SF56G	SF57G	SF58G	Unit
Marking spec		SF51G	SF52G	SF53G	SF54G	SF55G	SF56G	SF57G	SF58G	
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	150	200	300	400	500	600	V
Maximum RSM voltage	V_{RSM}	35	70	105	140	210	280	350	420	V
Maximum DC blocking voltage	V_{DC}	50	100	150	200	300	400	500	600	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at T_A = 55°C	$I_{F(AV)}$	5.0								A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150								A
Maximum DC blocking voltage temperature	T_A	150								°C
Typical thermal resistance (Note 2)	RθJA	20								°C/W
Operating junction temperature range	T_J	–50 to +150								°C
Storage temperature range	T_{STG}	–50 to +150								°C

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

Parameter Symbol	symbol	SF51G	SF52G	SF53G	SF54G	SF55G	SF56G	SF57G	SF58G	Unit
Maximum instantaneous forward voltage at 5.0A	V_F	0.95				1.25		1.7		V
Maximum DC reverse current TA = 25°C at rated DC blocking voltage TA = 125°C	IR	10 100								μA
Typical reverse recovery time (Note 1)	trr	35								ns
Typical junction capacitance at 4.0V, 1MHz	CJ	50				30				PF

NOTES:

1. IF = 0.5A, IR = 1.0A, IRR = 0.25A
2. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

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

Fig. 1 – Forward Current Derating Curve

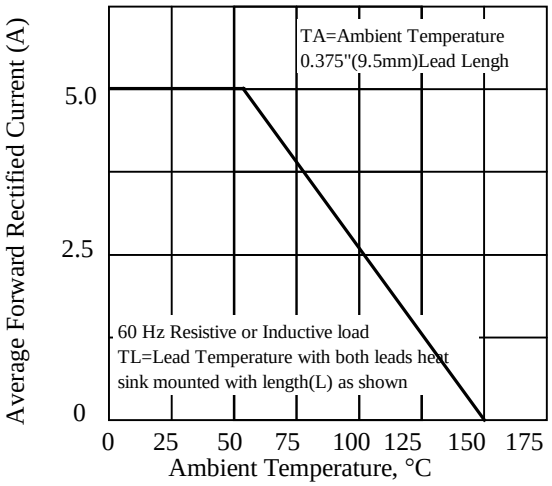


Fig. 2 – Maximum Non-repetitive Peak Forward Surge Current

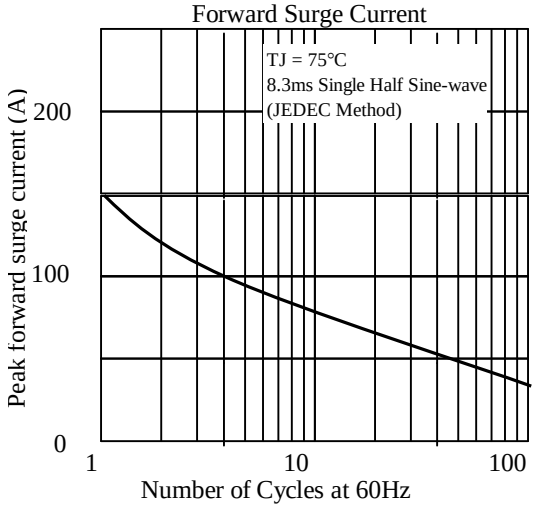


Fig 3. – Typical Instantaneous Forward Characteristics

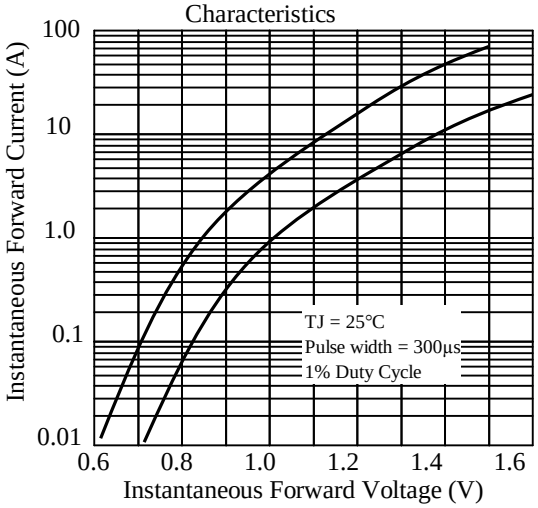


Fig 4. – Typical Reverse Characteristics

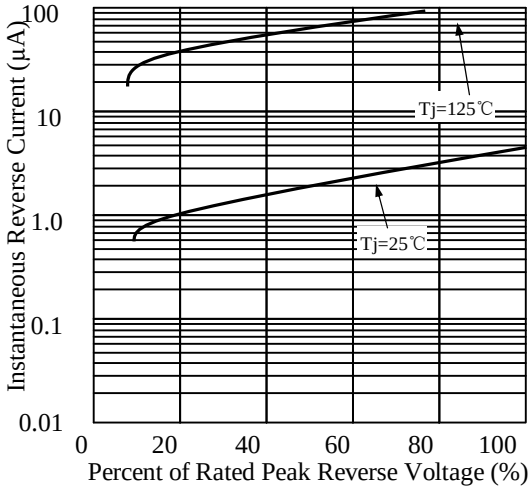


Fig 5. – typical transient thermal impedance

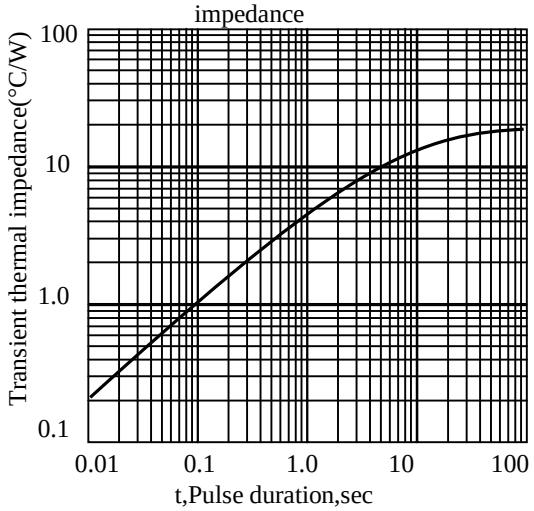
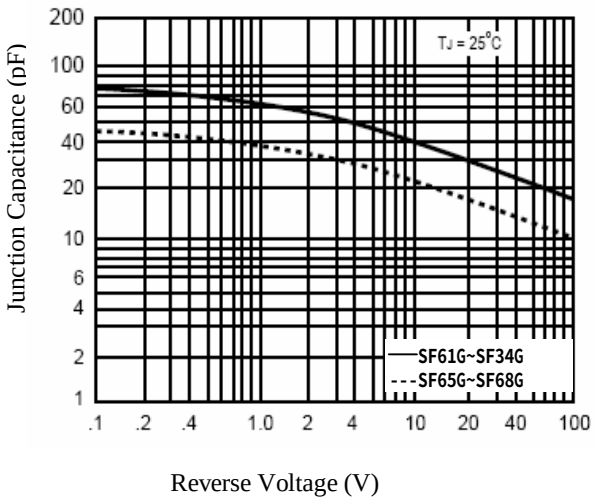
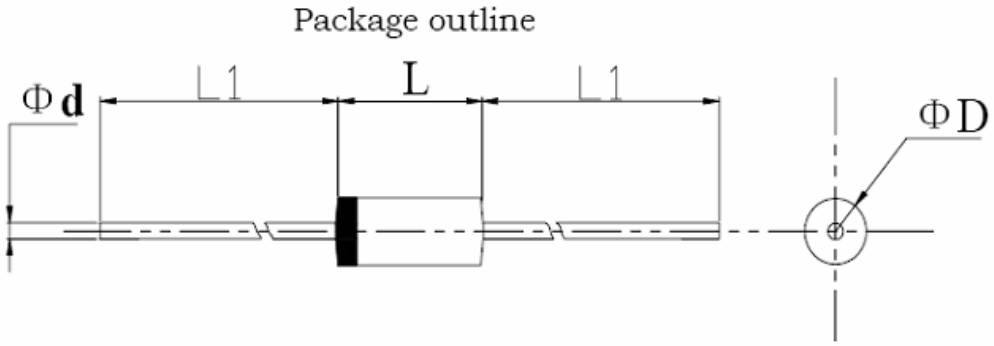


Fig 6. – Typical Junction Capacitance



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3. dimension:

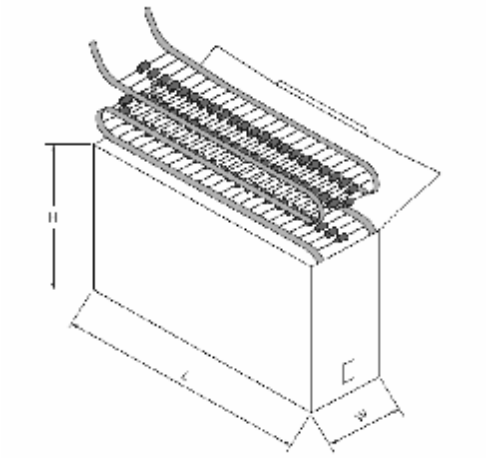


Dimensions					Note:
	inches		mm		DO-201AD
	Min.	Max.	Min.	Max.	molded plastic case
L	0.335	0.375	8.5	9.5	The marking band indicates the
L1	1.0	-	25.4	-	cathode
ΦD	0.197	0.220	5.0	5.6	
Φd	0.048	0.052	1.2	1.3	

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 1 页

1 弹带盒装 ammo and box

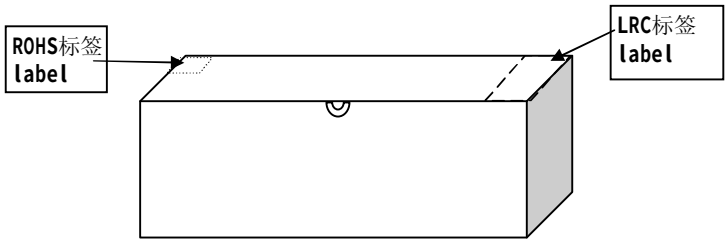
1.1. 弹带盒规格 ammo spec.



单位：mm

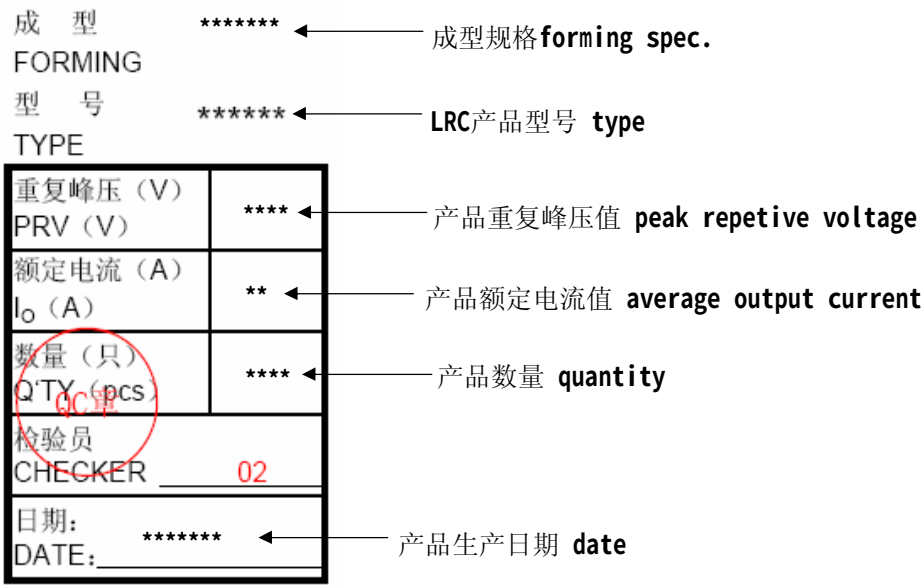
	L	W	H
T52	262±2	76±2	90±2
T42	262±2	64±2	90±2
T26	250±3	45±3	95±3

1.2 弹带内盒要求 inner box spec.



1.4 标签要求 label spec.

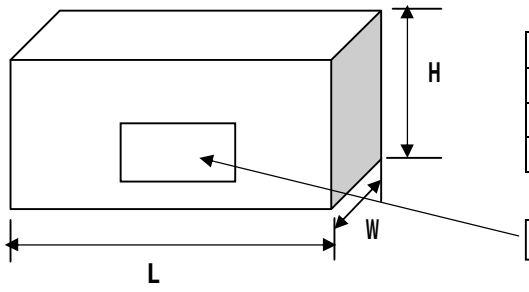
1.4.1 LRC标签 LRC label



1.4.2环保标签 environmental protection label



2.外箱规格 cartoon spec.



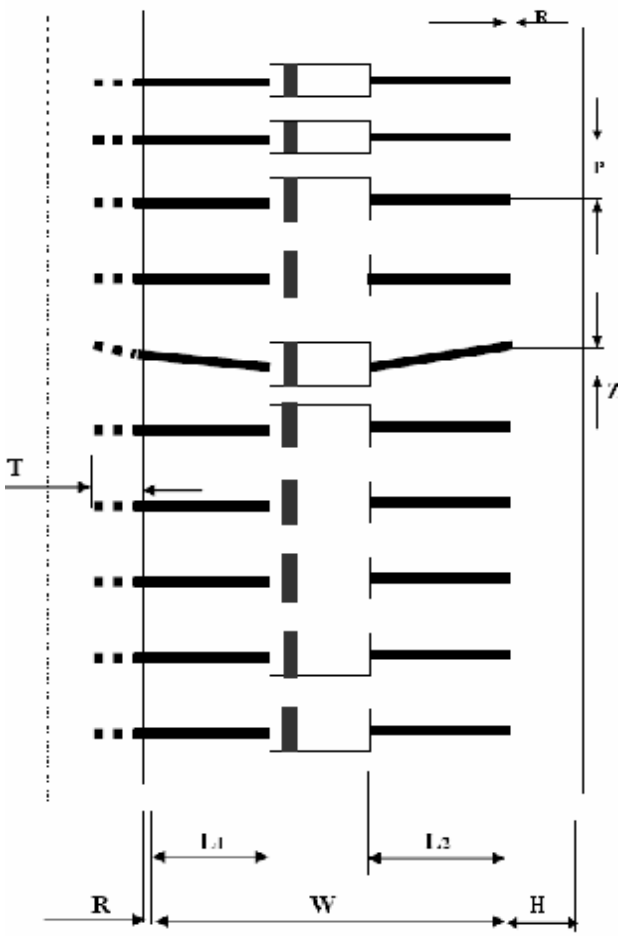
单位：mm

	L	W	H
T52	430±2	280±2	225±2
T42	410±2	285±2	300±2
T26	435±3	280±3	295±3

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	-

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

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4. Update Record

版次	更新记录	更新作者	更新日期
1	第一版	周杰	2010-6-22
2	增加包装规范	周杰	2011-6-30
3	增加SF57G	周杰	2012-2-13