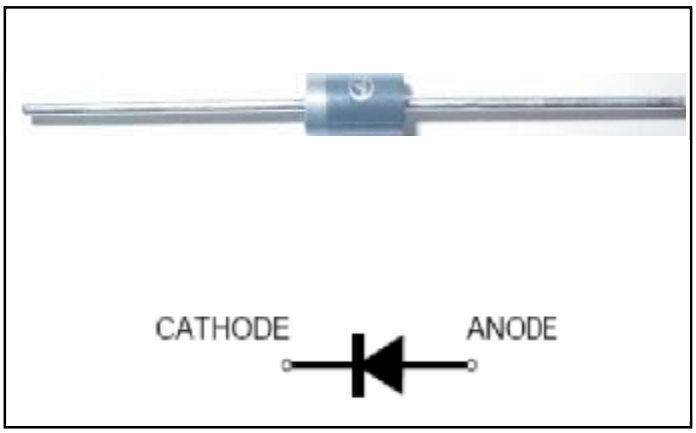
SB820 thru SB8100

Schottky Barrier Rectifiers
Reverse Voltage 20 to 100V

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



We declare that the material of product compliance with ROHS requirements

Mechanical Data

Case : JEDEC DO-201AD, molded plastic over sky die
Terminals : Plated axial leads, solderable per MIL-STD-750, Method 2026
Polarity : Color band denotes cathode end
Weight : 0.038oz., 1.03 g
Mounting position : Any
Handling precautin : None

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

Parameter symbol	Symbol	SB820	SB830	SB840	SB850	SB860	SB880	SB8100	Unit
Device marking code		SB820	SB830	SB840	SB850	SB860	SB880	SB8100	
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	80	100	V
Maximum RSM voltage	V_{RSM}	14	21	28	35	42	56	70	V
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	80	100	V
Maximum average forward rectified current 0.375" (9.5mm) lead length (See fig. 1)	IF(AV)	5.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM1}	150							A
Peak forward surge current 1.0ms single half sine-wave superimposed on rated load	I_{FSM2}	200							A
Minimum ESD (1.4601.442-01 ESD contact)		15							KV
Thermal resistance, junction to ambient	RθJA	35							°C/W
Thermal resistance, junction to case	RθJC	5							°C/W
Operating junction and storage temperature range	TJ, TSTG	–40 to +150							°C

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

Parameter symbol	Symbol	SB820	SB830	SB840	SB850	SB860	SB880	SB8100	Unit
Maximum instantaneous forward voltage at 5.0A	VF	0.50			0.70		0.84		V
Maximum DC reverse current TC = 25°C	Ir	1							mA
ton=8ms; toff=35ms TC = 120°C	Ir	10							mA
ton=8ms; toff=35ms TC = 140°C	Ir	30							mA
Maximum reverse recovery time TC = 25°C TC = 120°C	Trr	20 35							ns
Typical junction capacitance at 4.0V, 1MHz	CJ	500			380				PF

Notes:
1. Thermal resistance from junction to ambient at 0.375” (9.5mm) lead length, P.C.B. mounted

SB820 thru SB8100

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

Fig. 1 – Forward Current Derating Curve

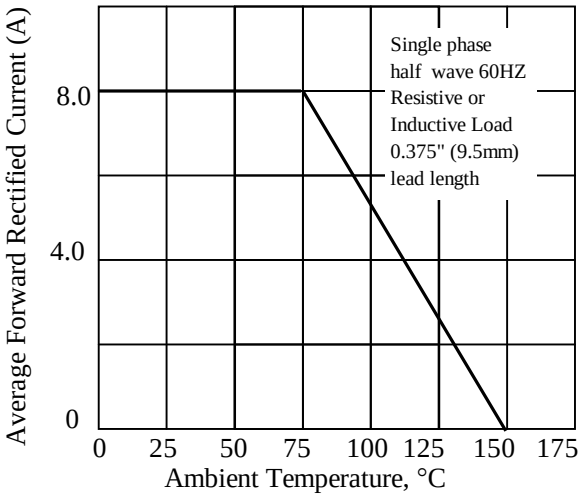


Fig. 2 – Maximum Non-repetitive Peak Forward Surge Current

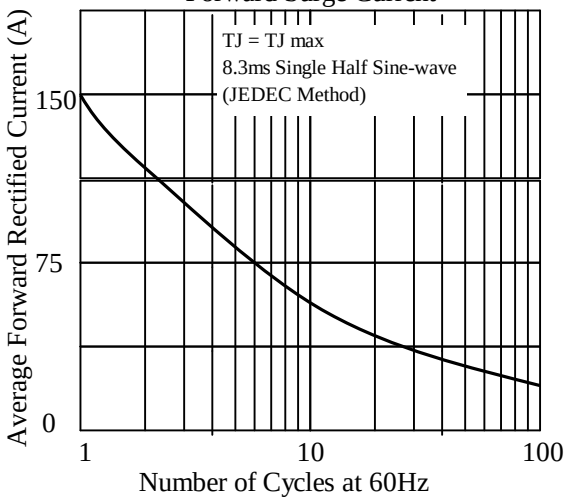


Fig 3. – Typical Instantaneous Forward Characteristics

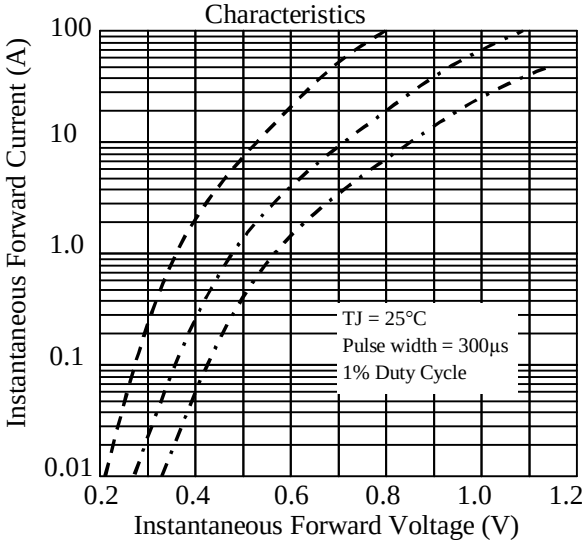


Fig 4. – Typical Reverse Characteristics

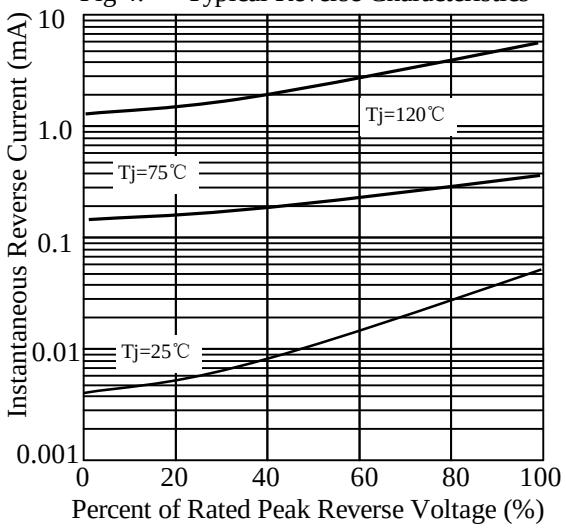


Fig 5. – typical transient thermal impedance

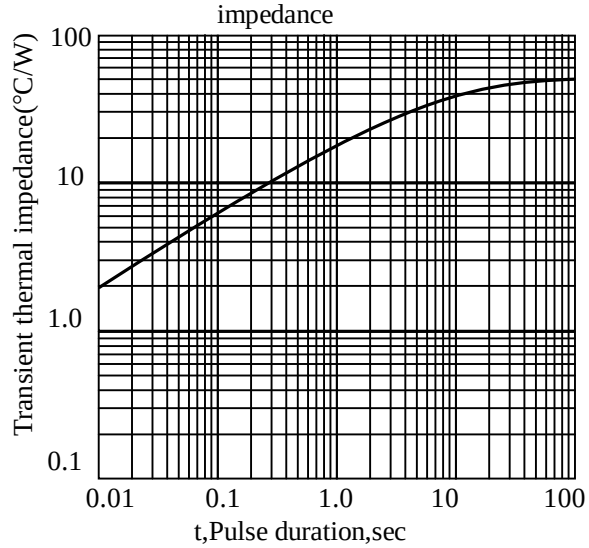
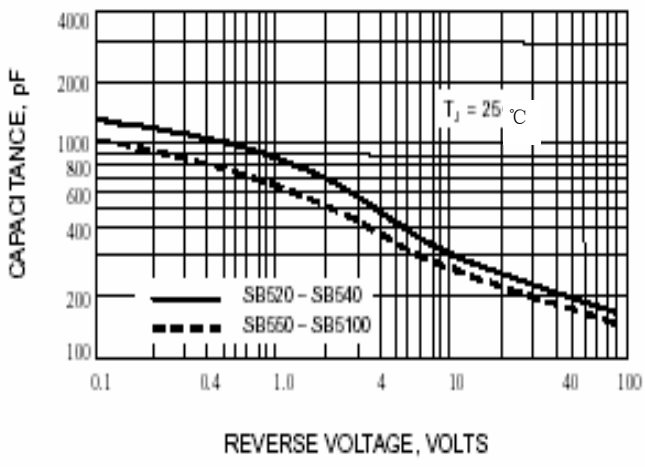
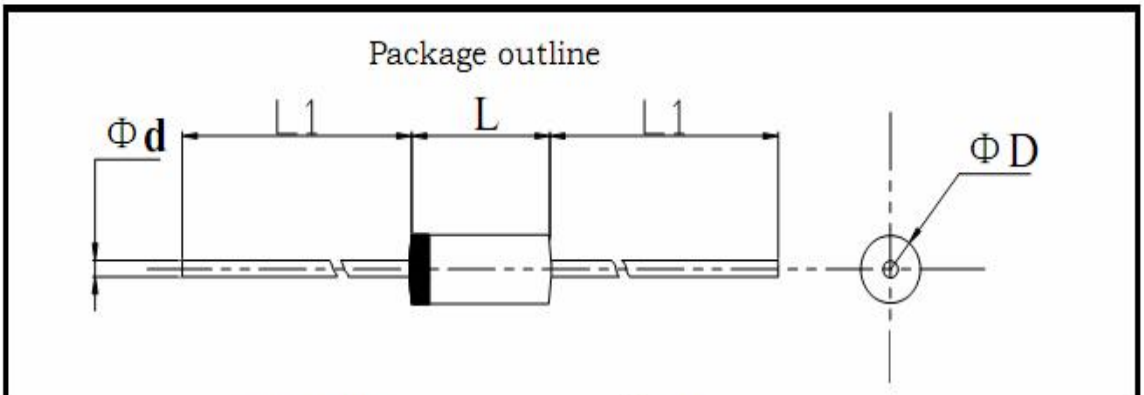


Fig 6. – Typical Junction Capacitance



SB820 thru SB8100

3. dimension:

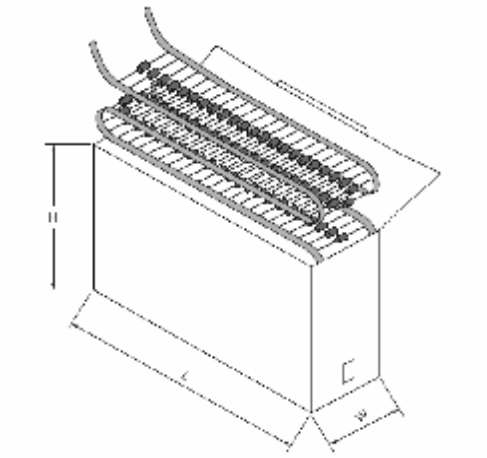


Dimensions					Note:
	inches		mm		DO-201AD
	Min.	Max.	Min.	Max.	molded plastic case
L	0.335	0.375	8.5	9.5	The marking band indicates the
L1	1.0	-	25.4	-	cathode
ΦD	0.197	0.220	5.0	5.6	
Φd	0.048	0.052	1.2	1.3	

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

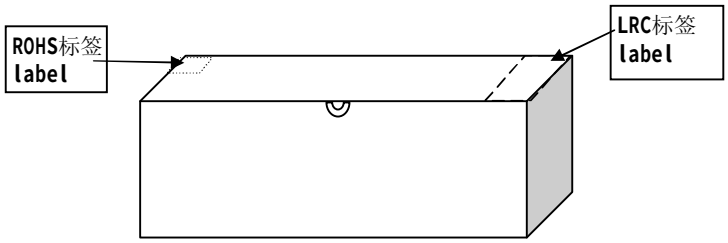
1.1. 弹带盒规格 ammo spec.



单位：mm

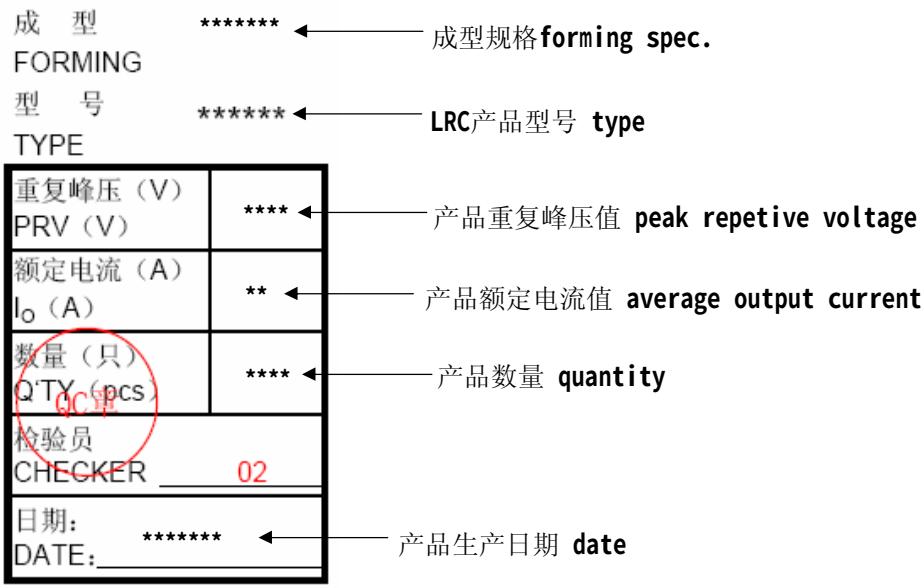
	L	W	H
T52	262±2	76±2	90±2
T42	262±2	64±2	90±2
T26	250±3	45±3	95±3

1.2 弹带内盒要求 inner box spec.



1.4 标签要求 label spec.

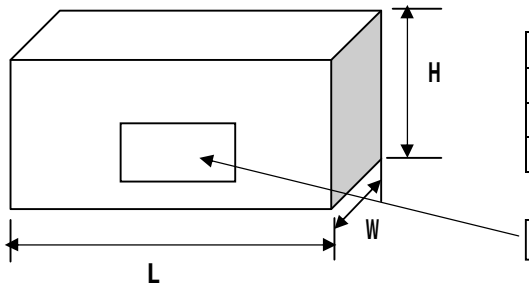
1.4.1 LRC标签 LRC label



1.4.2环保标签 environmental protection label



2.外箱规格 cartoon spec.



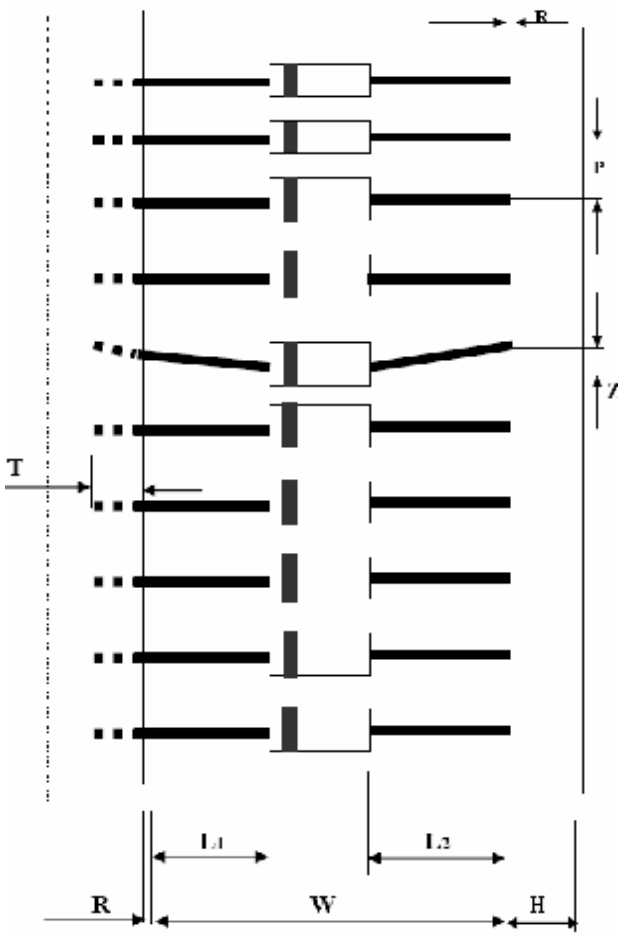
单位：mm

	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

SB820 thru SB8100

4. Update Record

版次	更新记录	更新作者	更新日期
1	第一版	周杰	2012.07.31