P6KE*** Series

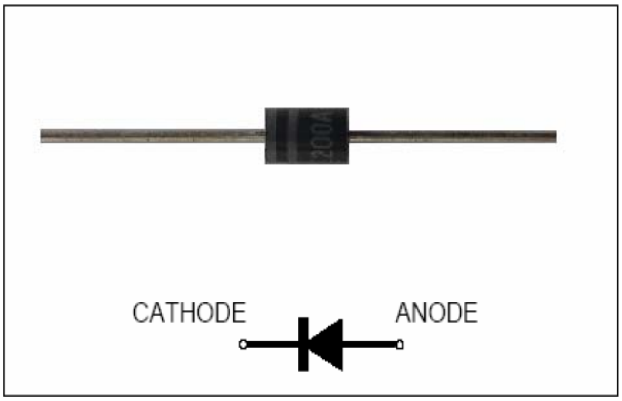
GLASS PASSIVATED JUNCTION TRANSIENT VOLTAGE SUPPRESSOR

VOLTAGE - 6.8 TO 550 Volts

600Watt Peak Power 5.0 Watt Steady State

Feature

* Plastic package has Underwriters Laboratory Flammability Classification 94V-O
* Glass passivated chip junction in DO-15 package
* 600W surge capability at 1ms
* Excellent clamping capability
* Low zener impedance
* Fast response time: typically less than 1.0 ps from 0 volts to BV min
* Typical IR less than 1μA above 10V
* High temperature soldering guaranteed: 260 /10 seconds/.375",(9.5mm) lead length/5lbs., (2.3kg) tension



We declare that the material of product compliance with ROHS requirements

Mechanical Data

Case: JEDEC DO-15 molded plastic
Terminals: Axial leads, solderable per MIL-STD-202, Method 208
Polarity: Color band denoted cathode except Bipolar
Mounting Position: Any
Weight: 0.015 ounce, 0.4 gram

DEVICES FOR BIPOLAR APPLICATIONS

For Bidirectional use C or CA Suffix for types P6KE6.8 thru types P6KE550

Electrical characteristics apply in both directions.marking code is all type.

1.Electrical Characteristic

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

RATING	SYMBOL	VALUE	UNITS
Peak Power Dissipation at T_A=25°C, T_P=1ms(Note 1)	P_{PPM}	Minimum 600	Watts
Steady State Power Dissipation at T_L=75°C Lead Lengths .375",(9.5mm) (Note 2)	$P_{M(AV)}$	5.0	Watts
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load(JECED Method) (Note 3)	I_{FSM}	100	Amps
Operating Temperature Range	T_J	-55 to +150	°C
Storage Temperature Range	T_{STG}	-55 to +175	°C

NOTES:
1. Non-repetitive current pulse, per Fig. 3 and derated above TA=25°C per Fig. 2.
2. Mounted on Copper Leaf area of 1.57in2(40mm^2).
3. 8.3ms single half sine-wave, duty cycle= 4 pulses per minutes maximum.

P6KE*** Series

UNI-DIRECTIONAL PART NUMBER	REVERSE STAND-OFF VOLTAGE VRWM (V)	BREAKDOWN VOLTAGE VBR (V) MIN. @IT	BREAKDOWN VOLTAGE VBR (V) MAX. @IT	TEST CURRENT IT (mA)	MAXIMUM CLAMPING VOLTAGE @IPP VC (V)	MAXIMUM PEAK PULSE CURRENT IPPM (Amps)	REVERSE LEAKAGE @VRWM IR (uA)
P6KE6.8	5.5	6.12	7.48	10	10.8	55.6	1000
P6KE6.8A	5.8	6.45	7.14	10	10.5	57.1	1000
P6KE7.5	6.05	6.75	8.25	10	11.7	51.3	500
P6KE7.5A	6.4	7.13	7.88	10	11.3	53.1	500
P6KE8.2	6.63	7.38	9.02	10	12.5	48.0	200
P6KE8.2A	7.02	7.79	8.61	10	12.1	49.6	200
P6KE9.1	7.37	8.19	10	1	13.8	43.5	50
P6KE9.1A	7.78	8.65	9.5	1	13.4	44.8	50
P6KE10	8.1	9	11	1	15.0	40.0	10
P6KE10A	8.55	9.5	10.5	1	14.5	41.4	10
P6KE11	8.92	9.9	12.1	1	16.2	37.0	1
P6KE11A	9.4	10.5	11.6	1	15.6	38.5	1
P6KE12	9.72	10.8	13.2	1	17.3	34.7	1
P6KE12A	10.2	11.4	12.6	1	16.7	35.9	1
P6KE13	10.5	11.7	14.3	1	19.0	31.6	1
P6KE13A	11.1	12.4	13.7	1	18.2	33.0	1
P6KE15	12.1	13.5	16.5	1	22.0	27.3	1
P6KE15A	12.8	14.3	15.8	1	21.2	28.3	1
P6KE16	12.9	14.4	17.6	1	23.5	25.5	1
P6KE16A	13.6	15.2	16.8	1	22.5	26.7	1
P6KE18	14.5	16.2	19.8	1	26.5	22.6	1
P6KE18A	15.3	17.1	18.9	1	25.2	23.8	1
P6KE20	16.2	18	22	1	29.1	20.6	1
P6KE20A	17.1	19	21	1	27.7	21.7	1
P6KE22	17.8	19.8	24.2	1	31.9	18.8	1
P6KE22A	18.8	20.9	23.1	1	30.6	19.6	1
P6KE24	19.4	21.6	26.4	1	34.7	17.3	1
P6KE24A	20.5	22.8	25.2	1	33.2	18.1	1
P6KE27	21.8	24.3	29.7	1	39.1	15.3	1
P6KE27A	23.1	25.7	28.4	1	37.5	16.0	1
P6KE30	24.3	27	33	1	43.5	13.8	1
P6KE30A	25.6	28.5	31.5	1	41.4	14.5	1
P6KE33	26.8	29.7	36.3	1	47.7	12.6	1
P6KE33A	28.2	31.4	34.7	1	45.7	13.1	1
P6KE36	29.1	32.4	39.6	1	52.0	11.5	1
P6KE36A	30.8	34.2	37.8	1	49.9	12.0	1
P6KE39	31.6	35.1	42.9	1	56.4	10.6	1
P6KE39A	33.3	37.1	41	1	53.9	11.1	1
P6KE43	34.8	38.7	47.3	1	61.9	9.7	1
P6KE43A	36.8	40.9	45.2	1	59.3	10.1	1
P6KE47	38.1	42.3	51.7	1	67.8	8.8	1
P6KE47A	40.2	44.7	49.4	1	64.8	9.3	1
P6KE51	41.3	45.9	56.1	1	73.5	8.2	1
P6KE51A	43.6	48.5	53.6	1	70.1	8.6	1
P6KE56	45.6	50.4	61.6	1	80.5	7.5	1
P6KE56A	47.8	53.2	58.8	1	77.0	7.8	1
P6KE62	50.2	55.8	68.2	1	89.0	6.7	1
P6KE62A	53	58.9	65.1	1	85.0	7.1	1
P6KE68	55.1	61.2	74.8	1	98.0	6.1	1
P6KE68A	58.1	64.6	71.4	1	92.0	6.5	1

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P6KE75	60.7	67.5	82.5	1	108	5.6	1
P6KE75A	64.1	71.3	78.8	1	103	5.8	1
P6KE82	66.4	73.8	90.2	1	118	5.1	1
P6KE82A	70.1	77.9	86.1	1	113	5.3	1
P6KE91	73.7	81.9	100	1	131	4.6	1
P6KE91A	77.8	86.5	95.5	1	125	4.8	1
P6KE100	81	90	110	1	144	4.2	1
P6KE100A	85.5	95	105	1	137	4.4	1
P6KE110	89.2	99	121	1	158	3.8	1
P6KE110A	94	105	116	1	152	3.9	1
P6KE120	97.2	108	132	1	173	3.5	1
P6KE120A	102	114	126	1	165	3.6	1
P6KE130	105	117	143	1	187	3.2	1
P6KE130A	111	124	137	1	179	3.4	1
P6KE150	121	135	165	1	215	2.8	1
P6KE150A	128	143	158	1	207	2.9	1
P6KE160	130	144	176	1	230	2.6	1
P6KE160A	136	152	168	1	219	2.7	1
P6KE170	138	153	187	1	244	2.5	1
P6KE170A	145	162	179	1	234	2.6	1
P6KE180	146	162	198	1	258	2.3	1
P6KE180A	154	171	189	1	246	2.4	1
P6KE200	162	180	220	1	287	2.1	1
P6KE200A	171	190	210	1	274	2.2	1
P6KE220	175	198	242	1	344	1.7	1
P6KE220A	185	209	231	1	328	1.8	1
P6KE250	202	225	275	1	360	1.7	1
P6KE250A	214	237	263	1	344	1.7	1
P6KE300	243	270	330	1	430	1.4	1
P6KE300A	256	285	315	1	414	1.4	1
P6KE350	284	315	385	1	504	1.2	1
P6KE350A	300	332	368	1	482	1.2	1
P6KE400	324	360	440	1	574	1.0	1
P6KE400A	342	380	420	1	548	1.1	1
P6KE440	356	396	484	1	631	1.0	1
P6KE440A	376	418	462	1	602	1.0	1
P6KE480	389	432	528	1	686	0.9	1
P6KE480A	408	456	504	1	658	0.9	1
P6KE510	413	459	561	1	729	0.8	1
P6KE510A	434	485	535	1	698	0.9	1
P6KE550	445	495	605	1	791	0.8	1
P6KE550A	467	523	577	1	760	0.8	1

NOTES:

1. Non-repetitive current pulse, per Fig. 3 and derated above TA=25°Cper Fig. 2.
2. Mounted on Copper Leaf area of 1.57in2(40mm2).
3. 8.3ms single half sine-wave, duty cycle= 4 pulses per minutes maximum.

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

Fig. 1-Peak Pulse Power Rating Curve

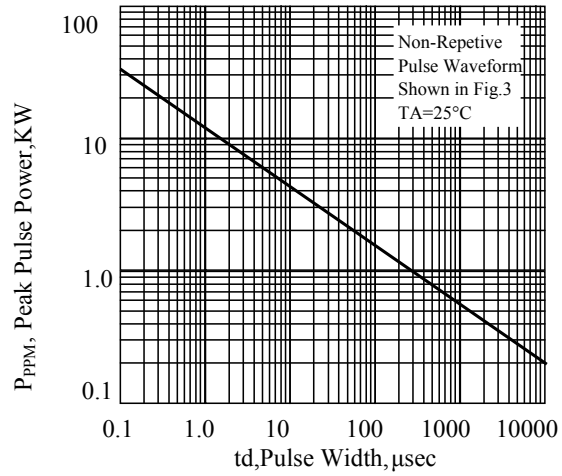


Fig. 2-Pulse Derating Curve

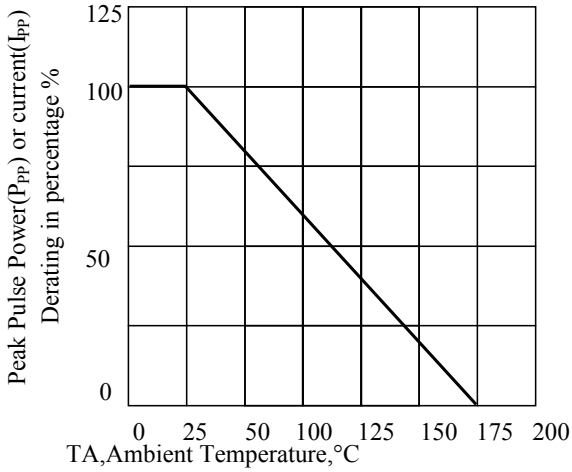


Fig. 3-Pulse Waveform

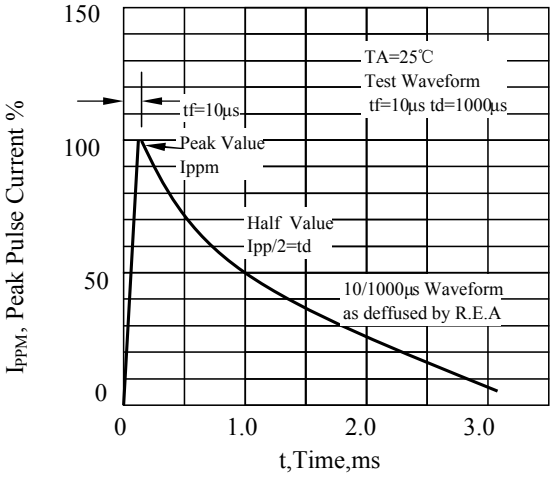


Fig. 4-Steady State Power Derating Curve

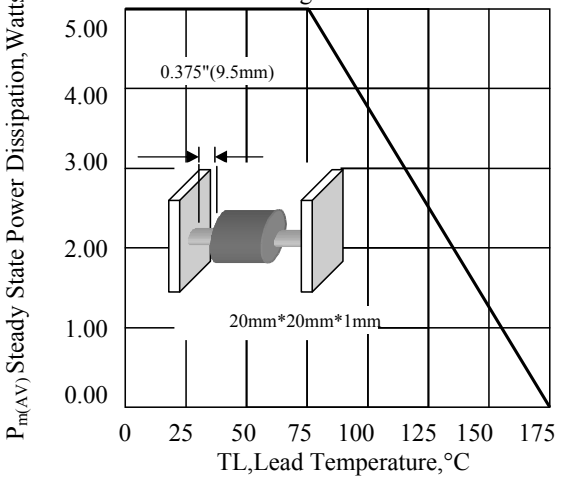


Fig. 5-Maximum Non-Repetitive Peak Forward Surge Current Unidirectional

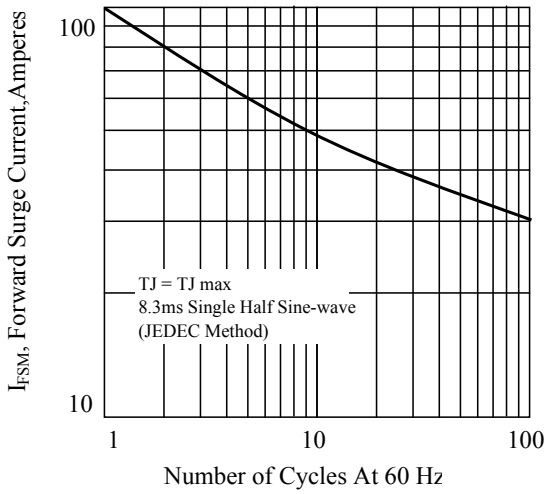
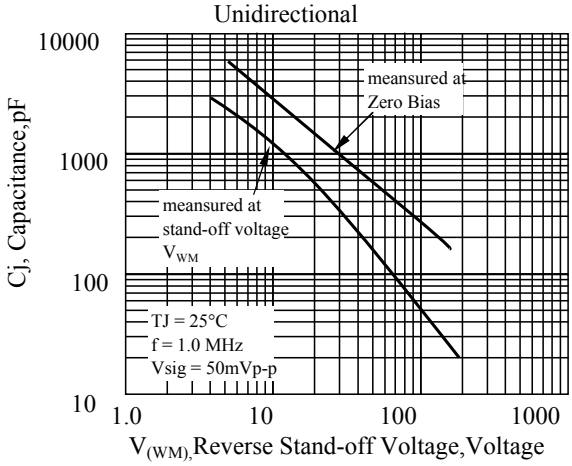


Fig. 4-Typical Junction Capacitance Unidirectional



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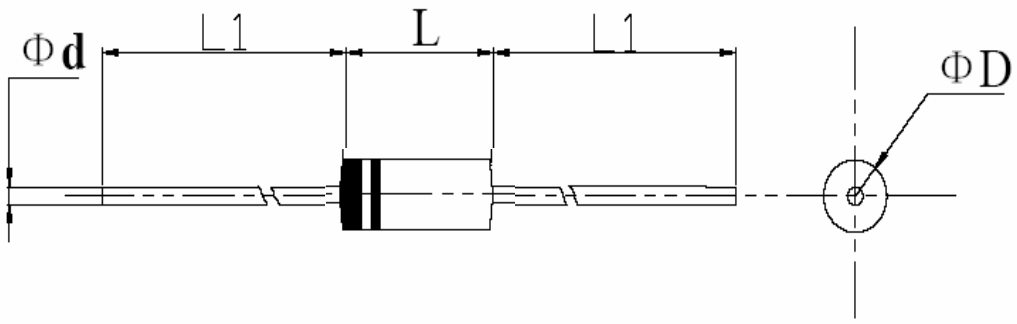
3. dimension:

Package outline

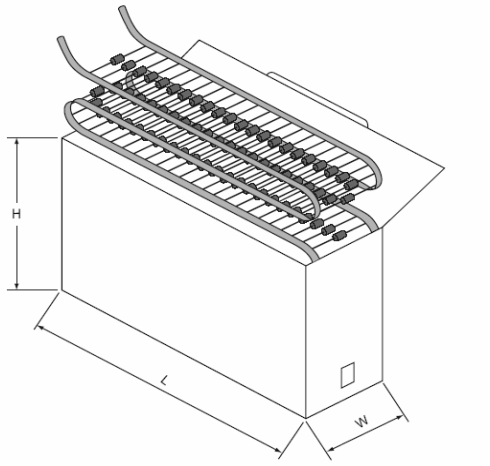


Dimensions				
	inches		mm	
	Min.	Max.	Min.	Max.
L	0.230	0.300	5.8	7.6
L1	1.0	-	25.4	-
ΦD	0.104	0.140	2.6	3.6
Φd	0.028	0.034	0.7	0.9

Note:
DO-15
molded plastic case
The marking band indicates the cathode

5.1.2 弹带盒装

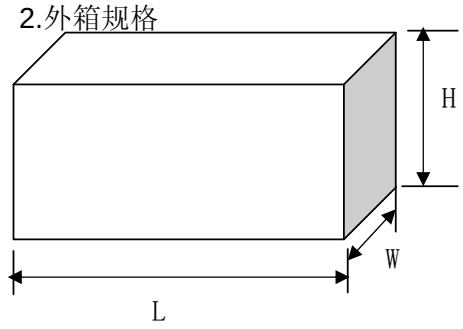
1. 弹带盒规格



单位：mm

	L	W	H
52编带尺寸	262±2	76±2	90±2
42编带尺寸	262±2	64±2	90±2
26编带尺寸	250±3	45±3	95±3

2.外箱规格



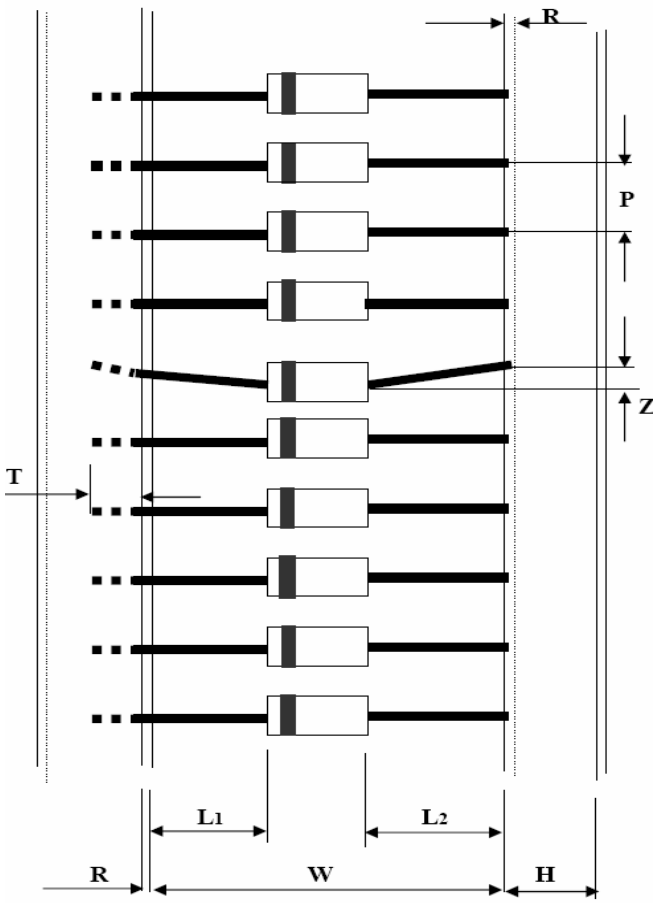
单位：mm

	L	W	H
52外箱尺寸	405±2	270±2	195±2
42外箱尺寸	412±2	282±2	295±2
26外箱尺寸	425±3	280±3	330±3

3. 按以上包装方式，编带数量和外包装箱产品数量：

	塑封外型			
	A-405 & DO-41 & R-1	R-3	DO-15	DO-201AD
每根编带数量	3K	1.8K	2K(T52) 1.8K(T26)	0.8K
T52外箱数量	30K	18K	20K	8K
T42外箱数量	54K	32.4K	36K	
T26外箱数量	84K	50.4K	50.4K	

5.1.4 编带规格



Unit:mm

尺寸代号	编带尺寸					
	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	<1.2	<1.2
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

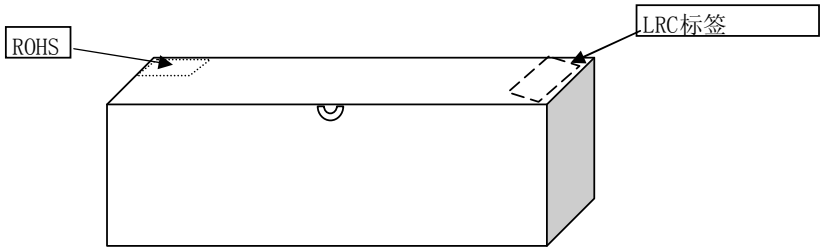
注： 52编带# 为DO-201AD编带规格

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。
2. 两端引带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”。
4. 无卤（无卤产品才贴）

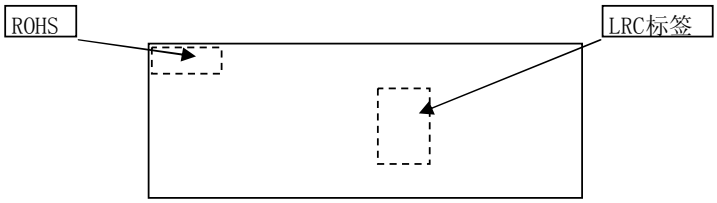
Gree

5.2、轴向产品通用包装规范

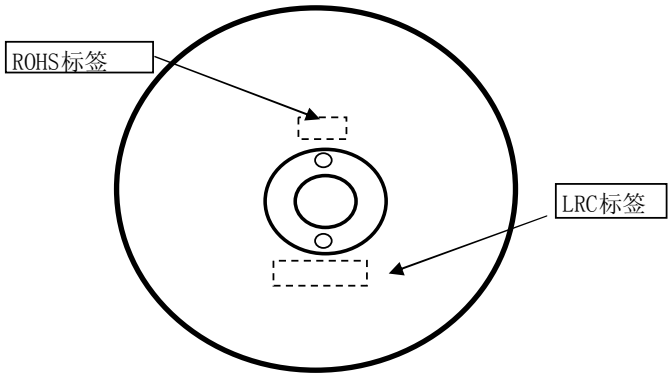
5.2.1.1弹带内盒要求



5.2.1.2盒装要求

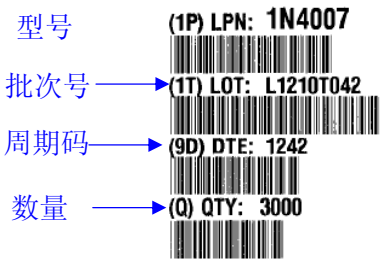


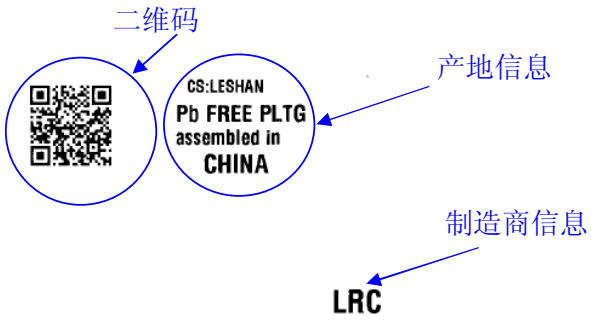
5.2.1.3卷装要求



5.2.2标签要求

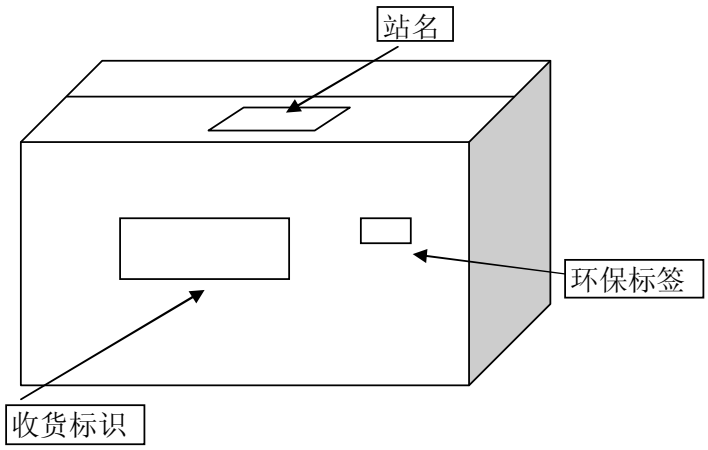
5.2.2.1.1LRC标签





5.2.2.1.2环保标签

5.2.3外箱要求



5.2.3.1收货标识

客户	
型号	
数量	
CPN	

此栏根据客户需要，若无CPN则无

5.2.3.2环保标签

5.2.3.3站名

例 XXXX

5.3.1产品出厂检验报告
每批出货时，需要附上出厂检验报告

5.3.2尾箱
同一编码每批次只允许出现一个尾数箱，对于尾数物料，须用缓冲材料对空余部分填充好，保证物料在受到一定的外作用力下不发生明显移动，且物料间无碰撞。

P6KE ***Series

4. Update Record

版次	更新记录	更新作者	更新日期
1	第一版	周杰	2010-5-4
2	将反向漏电流由5uA调整为1uA;	周杰	2010-9-15
3	增加440A/480A型号	周杰	2011-6-29
4	具体说明产品印字为产品名称。	周杰	2012-5-9
5	调整结电容曲线	周杰	2012-8-15
6	增加IPPM	周杰	2014-5-19