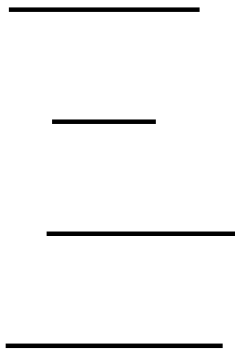




# 规格承认书







**TRX 特锐祥**  
专注电容器十年


**TRX 电容器一级代理商**

深圳市弗瑞鑫电子有限公司

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Tel : 0755-29563634

Emial : sales@frxelec.com

 <b>TRX</b> 专注电容器廿年	<b>SMD Y2 a.c. ceramic capacitors</b>			
	/Number	TRX-3-082	/Date	2020-02-10
	/Edition	A0	/Page	Page 2 of 23

## /E.C.LIST

Material	SMD-Y2.CAP		TRX P.N.	See	
Model NO.	See	Ed	A0	Date	2020-02-10
Ed	Date	Manufacturer		Remarks	
A0	2020-02-10	Nippon			
Manufacturer	JAENS	Country	/	Agency	SUNNY

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## / Rec g ed ec f ca

CODE	CUSTOMER P.N.	TRX P.N.	P d c de c	Pac age c de
1	/	TGY2681KB	SMD-Y2Y5P681K/AC300V	6054
2	/	TGY2102KB	SMD-Y2Y5P102K/AC300V	6054
3	/	TGY2222ME	SMD-Y2Y5U222M/AC300V	6054
4	/	TGY2332ME	SMD-Y2Y5U332M/AC300V	6054
5	/	TGY2472MF	SMD-Y2Y5V472M/AC300V	6054
6				
7				
8				
9				
10				
11				
12				

2/ attached sheet II

**TRX SMD-Y1.CAP**

Capacitance Range and T.C Differentiation (Unit:pF

Y1


S ec f ca a d de de c f Y1 AC ce a c f ed ca ac :

T.C	680	1000	2200	3300	4700
2B(Y5P)					
2E(Y5U)					
2F(Y5V)					
U <sub>R</sub>	300V.ac				
O e a g Te e a e	-40 125				
C a c ca eg	40/ 125/ 21				

1000V


100H

Ab Y AC ce a c f ed ca ac ac edge e ec f ca de c :  
 Y a.c. ce a c ca ac a e ed e ec ca a d e ec c e e a d c ec ed a a.c. a  
 a age e ceed g 1000 a.c, a d a a f e e c e ceed g 100H .

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## /CONTENT

1.	P d c Na e -----	5
2.	P d c a g -----	5-6
3.	Da e c de -----	6
4.	Ce f ca e -----	7
5.	P d c c e -----	7-8
6.	S de g c d -----	8-9
7.	Pe f a ce a d e e d -----	9-14
8.	Ca ac e e a e c a a c e c -----	14
9.	C e f c a d a f b a c e c e e e -----	15
10.	S age c d -----	15
11.	P d c Pac g -----	16-17
12.	A ca e -----	18

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**1. /Product Name**


**T**   **G**   **Y2**   **102**   **K**   **B**  
 ①   ②   ③   ④   ⑤

N .	C de	E a
①	T	TL TL e e
②	G	H g ca ac a ce
③	Y2	Safe c a
④	102	Ca ac a ce T e f d g e e e g f ca be , a d e a d g a e . (eg: 102=10 10 <sup>2</sup> =1000 F)
⑤	K	/Ca ac a ce e a ce K( 10%) / M( 20%)
	B	/c de fD e e c c B(Y5P) -30 +85 10% E(Y5U) -30 +85 22%/-56% F(Y5V) -30 +85 22%/-82%

Va c de e ed ab e f e c a a da da ca !

**2. /Product marking**

Ma g	<b>TL B 102K</b>
------	------------------

/Explanation	
 TRX	eg e ed ade a / b a d
TL	SMD-Y2 SMD-Y2 e e
B	/c de fD e ec c B(Y5P) / E(Y5U) / F(Y5V)
102	/Ca ac a ce (680-4700 F : 681-472)
K	/Ca ac a ce e a ce K( 10%)/M( 20%)
X1 440V	X1 X1 c a a ed age
Y2 300V	Y2 Y2 c a a ed age
M0512	Da e c de

### 3. /Date code

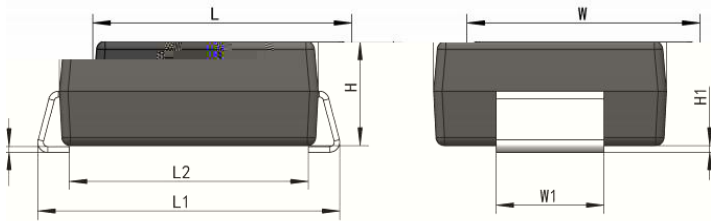
c de f ea				c de f		c de f da			
ea	c de	ea	c de		c de	da	c de	da	c de
		2020	M	1	01	1	01	16	16
		2021	N	2	02	2	02	17	17
2010	A	2022	P	3	03	3	03	18	18
2011	B	2023	R	4	04	4	04	19	19
2012	C	2024	S	5	05	5	05	20	20
2013	D	2025	T	6	06	6	06	21	21
2014	E	2026	U	7	07	7	07	22	22
2015	F	2027	V	8	08	8	08	23	23
2016	H	2028	W	9	09	9	09	24	24
2017	J	2029	X	10	10	10	10	25	25
2018	K			11	11	11	11	26	26
2019	L			12	12	12	12	27	27
						13	13	28	28
						14	14	29	29
						15	15	30	30
								31	31

### 3. /Certificates

certificates			
Ce f ca	S a d a d b e	Ce f c a e b e	Ce f e d a g e
UL/CUL	UL/CSA 60384-14	E315719	AC300V(. . .)
CQC	GB/T6346.14-2015	CQC20001280609	AC300V(. . .)
ENEC	EN 60384-14:2013/A1:2016	ENEC-03177	AC300V(. . .)
KC	K60384-14	HU03034-21003A	AC250V(. . .)

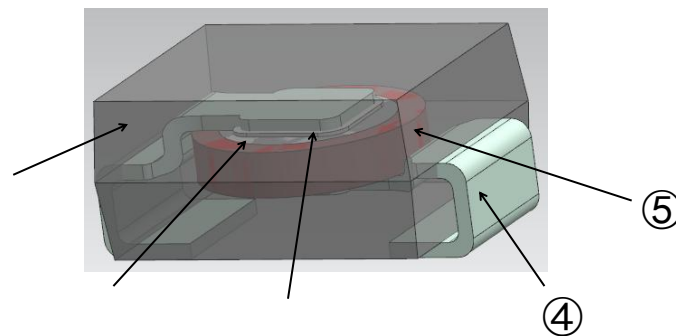
### 5. /Product structure

#### 5.1 /P d c e

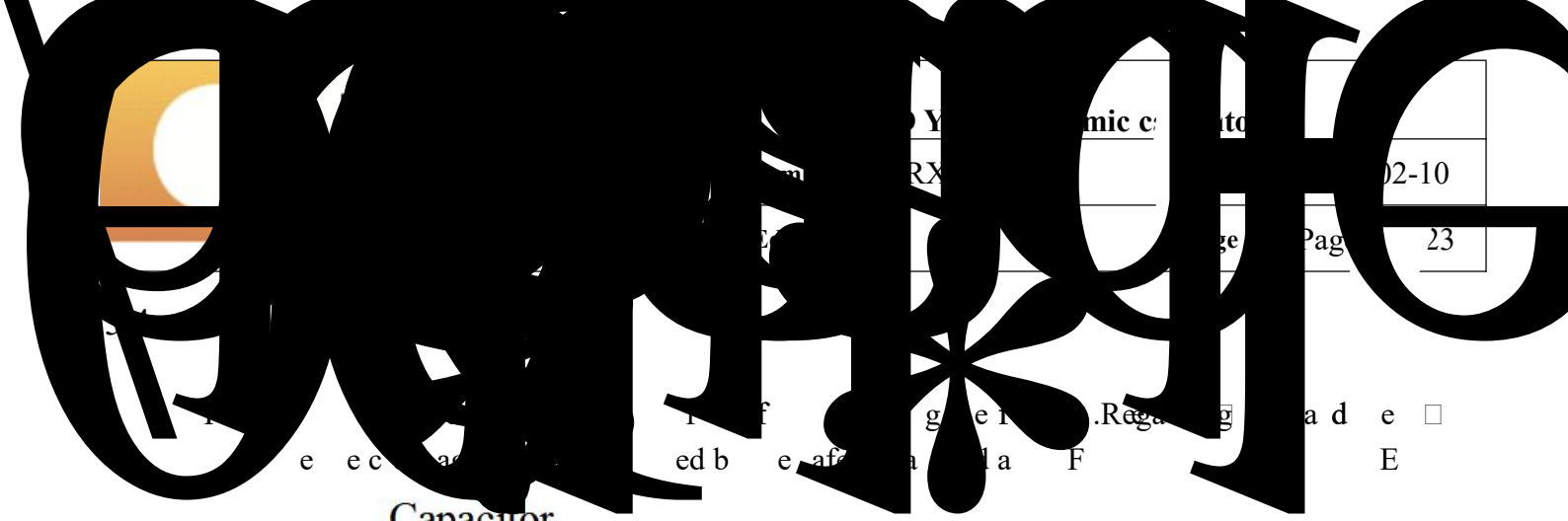


P d c D e ( )			
L	6.0 0.5	W	5.4 0.5
L1	7.0 0.5	L2	5.5 0.5
H	2.38 0.1	W1	2.5 0.05
H1	0.1 0.05	T	0.13 0.02

#### 5.2 /P d c c e

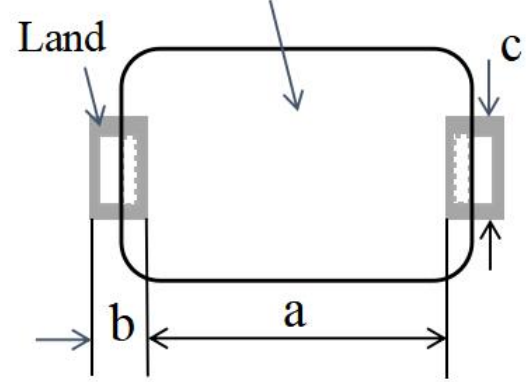


N .	Pa a e	M a e a
①	C a g	E d g c (UL94V-0) d (UL94V-0)
②	E e c d e	C e
③	S d e	S -Pb-Ag S -Pb-Ag S d e
④	Lead P	T e d c e
⑤	D e e c c	C e a c




e ec... ed b... e af... a... F... .Reg... ug... a d... e... □  
E

### Capacitor





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## 6.2 /F S de g

W e de gca ac , dbe ef ed f gc d .

280 。  
S de g e e a e 280°C a .

30 。  
S de g e 30 a .

200 。  
P e ea g e e a e 200 a .

180 。  
P e ea g e 180 a .

## 6.3 /S de g I PCB/PWB

W e de g d c a PCB/PWB, d e ceed e de ea e a ce ec fca f  
e ca ac . S bec g d c e ce e ea gc d e e e a c de a d a  
e e a c a ca cac e ce a c e e e .

W e de gca ac a de g , dbe ef ed f gc d .

400  
T e e a e f - 400 a .


50  
S de g a age 50W a .

5  
S de g e 5 a .

## 7. / Performance and test methods

NO	I e	S ec fca	e e d
1	A ea a ce	N b e da age Leg b e a g Lead da a d face d e .	a ded e e ag f e
2	D e	5.1 See 5.1 f de a	U gca e a d c e e


NO	I e		S e c f c a	e e d																		
3	V a g e f	B e e e e a d L e a d  B d a	N e a e b e a d f a e	/ e a g e : 2600VAC / f e e c : 50/60H / d a : 60 / e a g e c e : 5 A a																		
4	C a a c a c e		W e c f e d e a c e K: 10% M: 20%	/ T e a e : 25 3 / H d : 55 30%RH / V a g e : 1.0 0.2V / F e e c : 1 0.2KHZ																		
5	D.F.		W e c f e d e a c e Y5P: 2.5% Y5U: 2.5% Y5V: 2.5%	/ T e a e : 25 3 / H d : 55 30%RH / V a g e : 1.0 0.2V / F e e c : 1 0.2KHZ																		
6	TCC		Y5P: 10% Y5U: +22% -56% Y5V: +22% -82%	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td colspan="6" style="text-align: center;">/TCC: 2</td> </tr> <tr> <td style="text-align: center;">e</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> </tr> <tr> <td style="text-align: center;">T e ( )</td> <td style="text-align: center;">+20</td> <td style="text-align: center;">-25</td> <td style="text-align: center;">+20</td> <td style="text-align: center;">+85</td> <td style="text-align: center;">+20</td> </tr> </table> <p><math>\Delta = C_X - C_0 / C_0</math>  <math>C_X</math>: ca ac f e 2,4  <math>C_0</math>: ca ac f e 3</p>	/TCC: 2						e	1	2	3	4	5	T e ( )	+20	-25	+20	+85	+20
/TCC: 2																						
e	1	2	3	4	5																	
T e ( )	+20	-25	+20	+85	+20																	
7	I.R.	B e e e e a d  B d a	6000M MIN  6000M MIN	DC500 50V 60 5 1M  T e a e a c e a b e e a e d DC500 50V 60 5 f c a g g . T e a g e d b e a e d e c a c g a e f 1M .																		

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NO	I e	S e c f c a	e e d
----	-----	-------------	-------

a  
e a a

8 Re a ce  
de g  
ea

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NO	I e	S e c f c a	e e e d
----	-----	-------------	---------

11 V b a e a c e

Ca ac da age a b e

Y5P: 10%  
Y5U: 15%  
Y5V: 15%

DF 2.5%

Fe e c a g : 10 55 10H  
/ g:0.75

T e a d a a b e 6

X Y Z 2  
d a f e e a X,Y,Z  
2

12 D a e a ( e a d a e)

Ca ac a c e

age f

I.R.

3000M

N b e d a a g e

$\Delta=(C_x-C_0)/C_0$   
Y5P $\Delta$ : 10%  
Y5U $\Delta$ : 15%  
Y5V $\Delta$ : 15%

age: A U<sub>R</sub>(300V) a f f e a e a d a g e e e a f

25 3

24 2

ca ac a b e a c e d a  
25 3 f 24 2 b e f e e a e e .

/e e e a e : 40 2  
/ d : 95 3%RH  
/d a : 21d

U<sub>R</sub>(300V)

13 E d a c e

age f

I.R.

3000M

N b e d a a g e

$\Delta=(C_x-C_0)/C_0$   
Y5P $\Delta$ : 10%  
Y5U $\Delta$ : 15%  
Y5V $\Delta$ : 15%

age: 510VAC 1.7U<sub>R</sub> e c e a c e e e e a g e a b e c e a e d 1000 . . . f 0.1 .

47 5%


E a c f e e a g e a b e a e d  
T e a c c a a c d d a g  
a e f 47 5%.

25 3

24 2

Ca ac a b e a c e d a 25 3 f  
24 2 b e f e e a e e .

/T e e e a e : 125 3  
/D a : 1000<sup>+24</sup><sub>0</sub>  
510 VAC 1.7U<sub>R</sub>  
1000V

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NO	I e	S e c f c a	e e d
----	-----	-------------	-------

N e a e b e a d f a e d g e  
e e d.

If a e e c c e e e a e b e  
c c e a e a d a a e f  
d c a g a e f- e a g b e a d  
f a e a e a e a c e e c a a c , e  
f e e a b e a e d a d e P e a e a g e : 5.0KV  
c a a c a b e c e d a c f g.

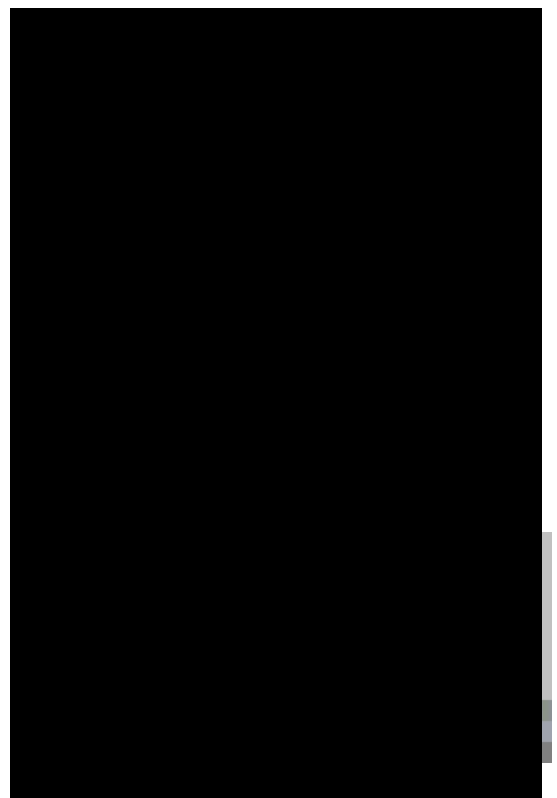
14 I e  
age 24 3 I e d a c e : 10

If a 24 e a e b e e a e d e  
c a a c a d 3 e f e a e f a I e e : 24  
a e f d c a g a e f- e a g  
b e a d f a e a e c c e d , e e  
c a a c a b e c e d a c f g.

If e a e e e a e f e e e d  
a e f , e e c a a c a b e c e d a  
a c f g e .

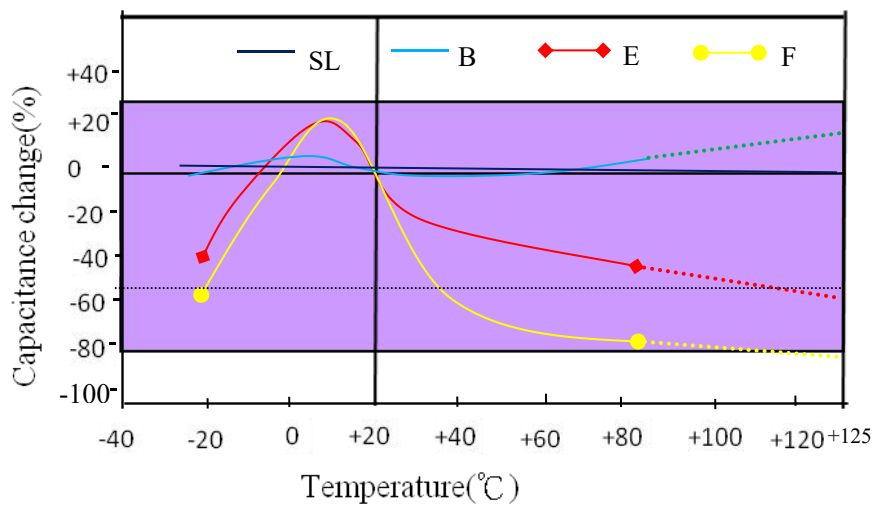
T e b 30 e d

15 P a e  
f a a b



NO	I e	S e c f c a	e e d
16	C e e R e a c e	N b e d a a g e. NO.3 NO.7 P e f a c e a c c d g N .3 N .7	:30 5% 70 5% S e b e e d: 30 5% a c a d 70 5% f a c d /S e e e a e: 23 5 T e c a a c a b e e g e d e f 5 0.5 e c d . /R e e e: 8
17	S e e a c e f e a g	T e a g a b e e g b e	:30 5% 70 5% S e b e e d: 30 5% a c a d 70 5% f a c d /S e e e a e: 23 5 T e c a a c a b e e g e d e f 5 0.5 e c d a d a a b e e d e d g e f 10 e .

### 8. /Capacitor temperature characteristic



**9. /Content of toxic and harmful substances control requirements**

R HS2.0 2011/65/EU

age

REACH N 190 7/2006



S b a c e	c c e a ( : )
/Cd a d cad c d	<100
/Lead a d ead c d	<1000
/Me c a d e c c d	<1000
/He a a e c c d	<1000
PBBS/P b a ed b e	<1000
PBDES/P b a ed d e e e	<1000
+ + + /Cd+Pb+ Hg + C +6( ac g a e a )	<100
/C	<900
/B	<900
+ /C +B	<1500
REACH SVHC S b a c e fVe Hg C ce (SVHC) fREACH	TRX REACH T e a e eac e fTRX a e a

**10. /Storage conditions**

(1).

T e a g E ded ca ac d e f a e fec ea ; e ef e, d e e  
 ca ac a c e a e e, e eca e e c de ga , f de ga . ac d, a a , a e  
 e a e e e . A d a d e e e e. S , de a d e ab f e,  
 ca ac a e ac ed e- f e e e.

(2).

S e e ca ac e f g c d 12 a a e , a d e 12 a f e  
 de e ed.  
 /T e e a e : 10 30  
 /H d : 60% a .

(3).

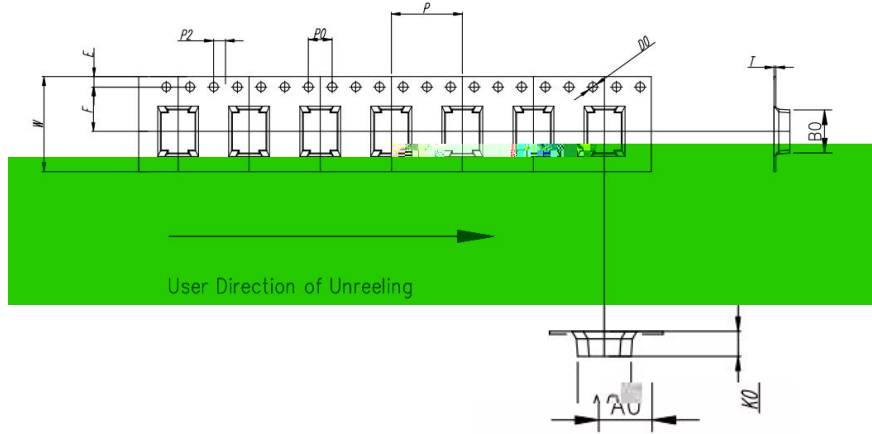
168  
 S de e e c ed ca ac 168 a f e e g e e- f ac age. A f e  
 e g, e e ca ac e- f ac age a de cca a d HIC ca d a d ee e ab e  
 c d .

(4).

6  
 (60 168 )  
 I ca e e age e d a bee e ceeded 6 e d ca c f a e c ed HIC ca d  
 a c a ged e e ac age a bee e ed, e f ba g (60 168 ) bef e de g.

### 11. /Product packaging

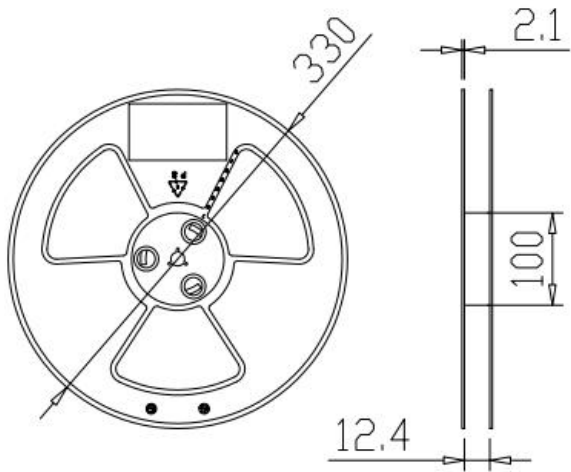
#### 11.1 /D e f a e



未标注斜角为: 5°.

ITEM	W	A0	B0	K1	K0	P	F	E	D0	D1	P0	P2	T															
DIM	16.0	$^{+0.30}_{-0.30}$	5.70	$^{+0.10}_{-0.10}$	7.30	$^{+0.10}_{-0.10}$	---	$^{+0.10}_{-0.10}$	2.70	$^{+0.10}_{-0.10}$	12.0	$^{+0.10}_{-0.10}$	7.50	$^{+0.10}_{-0.10}$	1.75	$^{+0.10}_{-0.10}$	0.15	$^{+0.10}_{-0.05}$	0.00	$^{+0.10}_{-0.05}$	4.0	$^{+0.10}_{-0.10}$	2.0	$^{+0.10}_{-0.10}$	0.30	$^{+0.05}_{-0.05}$		
ALTERNATE																												

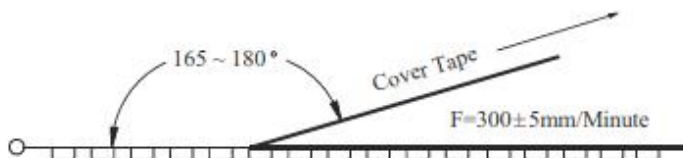
#### 11.2 /REEL




REEL	REEL SIZE
3000 c	13 c

#### 11.3 /Pee g S e g

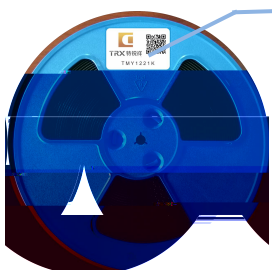


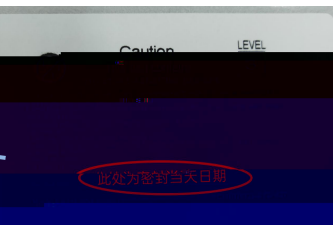
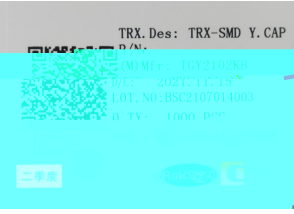
Item	Data	Remark
Cover tape adhesion	10 ~ 100g	Carrier tape and cover tape open angle 165 ~ 180° F=300± 5mm/minute

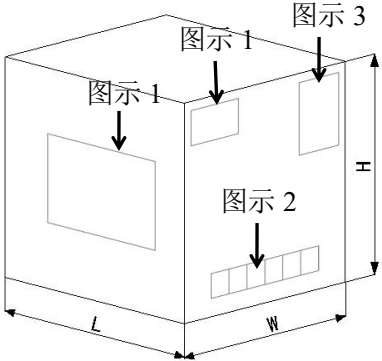


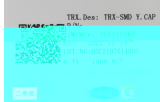









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11.4 /P d c Pac ag g Sc e e

<b>/inner-packaging</b>		<b>/I e</b>	
 <p>标签/Labe</p> <p>/Ree S e: 13 c 3.0KPCS/Ree</p>	 <p>TRX 料号 /I e d c abe</p>	TRX.De	
		P/N	
 <p>/P d c f a abe /Labe Sea ed bag</p>	 <p>/H d e e abe</p>	Mf	
		D/C	
		L .N	
		Q TY	
		SPEC	

<b>/Outer-packaging</b>																
	 <p>图示 1/F g e 1</p>	 <p>图示 2/F g e 2</p>	 <p>图示 3/F g e 3</p>													
	<table border="1" style="width: 100%;"> <tr> <td colspan="3" style="text-align: center;">D e ( )</td> <td>Q a</td> <td>O B We g</td> </tr> <tr> <td>L</td> <td>W</td> <td>H</td> <td rowspan="2" style="text-align: center;">45KPCS</td> <td rowspan="2" style="text-align: center;">15.0KG</td> </tr> <tr> <td style="text-align: center;">355</td> <td style="text-align: center;">358</td> <td style="text-align: center;">294</td> </tr> </table>		D e ( )			Q a	O B We g	L	W	H	45KPCS	15.0KG	355	358	294	
D e ( )			Q a	O B We g												
L	W	H	45KPCS	15.0KG												
355	358	294														

<b>/Package sketch:</b>			
 <p>/O B</p>	 <p>15 / /15Ree /B</p>	 <p>( / / ) Pa e S e(L/W/H) 1100*1100*90</p>	 <p>( / / ) S ac g e(L/W/H) 1100*1100*1600</p>
1.	5	5	2. PALLET & WRAPPING
<p>3. 50c 4. /</p> <p><b>Remark:</b> 1. T e 5 e ac g ac ed a e ca ' e a 5 a e ; 2. Pa e ac ag g &amp; g-d a ce a d be a g; 3. 50 c ab e e e g f e a ce d d ; 4. N a e e a e / d ee g.</p>			

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## 12. /Application notes

- ①. A e d a e fac a e e f e age f e b e e a da age e ca ac .
- ②. PCB PCB  
PCB  
Ca ac ed a ed c c b a d (PCB) e e e f PCB b a d e d g d c e ed a d ca ac a e de age e e , e e a ca e e ca ac a d e PCB b a d b a d e d g a d ca ac be def e fee b d de c a d da age e ca ac .
- ③. A d a c e e, e e f e a e .
- ④. P e a e c f f e b e d e ca ac a c e .
- ⑤. PCB  
D e e ca ac a f e a b e e d e d e b a d.
- ⑥. PCB  
D c e PC b a d b e d e d ca ac .