ORIENT

Ph c le

P d c Da a Shee

Pa N be : OR-M302X/OR-M305X

C e : _____

Da e: _____

一级代理商：

深圳市弗瑞鑫电子有限公司
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TEL 0755-29563634
FAX 0755-27447020
.frxelec.c

Fea e

(1) High i la i l age be ee i a d (Vi :3750 V)
(2) 4 i e -c i la iac d i e
(3) High e e i i e eak ff- a e l age VDRM :
302X: Mi . 400V , 305X: Mi . 600V
(4) High c i ical a e f i e f ff- a e l age d /d :
302X: T . 10V / ,305X:T . 800V /
(5) Ta e a d eel ackagi g.
(6) O e a i g e e a e -40 +110
(7) Safe a al
UL a ed(N .E323844)
VDE a ed(N .40029733)
CQC a ed (N .CQC19001231256)
(8) I c lia ce i h R HS, REACH a da d
(9) MSL Cla

De c i ion

The OR-M302X,OR-M305X c i f a e c i g h iac, icall c led a galli a e ide i f a ed e i i g di de. The a e h ed i he SOP-4 ackage a d g a a ee i la i hick e .The ef e, he ee he ei f ced i la i cla e i e e f i e a i al afe a da d .

3. A lica ion Range

AC M D i e AC M S a e S a ic e i ch
Ligh i g C l S le id/Val e C l S lid S a e Rela
Te e a e C l

4. F nc □

5. Ab ol e Ma im m Ra ing (Ta=25)

	Pa ame e		S mbol	Ra ed Val e	Uni
I	F a d C e		I_F	50	A
	J c i Te e a e		T_J	125	
	Re e e V l age		V_R	6	V
	P e Di i a i		P	100	W
	Off-S a e O Te i al V l age	OR-M302X	V_{DRM}	400	V
		OR-M305X		600	
O	O a e RMS c e		$I_{T(RMS)}$	100	A(RMS)
	Peak Re e i i e S ge C e (PW=1 120)		I_{TSM}	1	A
	J c i Te e a e		T_J	125	
	C llec P e Di i a i		P_C	300	W
	T al P e Di i a i		P	330	W
	*1 I la i V l age		V_i	3750	V
	W ki g Te e a e		T	-40 + 110	
	De i Te e a e		T_g	-55 + 125	
	*2 S lde i g Te e a e		T		

N e :
*1 AC f 1 i e, R.H.= 40 60% R.H. I hi e , i 1, 2&3 a e h ed ge he , a d i 4, 6 a e h ed ge he .
* 2 F 10 ec d

6. Elec ical O ical Cha ac e i ic a Ta=25 C

	Pa ame e		S mbol	Min	T .*	Ma	Uni	Condi ion
I	F a d V l age		V_F	---	1.2	1.6	V	I_F=10 A
	Re e e C e		I_R	---	---	5	A	V_R=6V
	*1.Peak Bl cki g C e , Ei he Di ec i		I_{DRM}	---	10	100	A	V_{DRM} = Ra ed V_{DRM}
O	Peak O -S a e V l age, Ei he Di ec i		V_{TM}	---	---	2.5	V	ITM=100 A Peak
	*2.C i ical a e f Ri e f Off-S a e V l age	OR-M302X	d /d	---	10	---	V/	Vi =240V
		OR-M305X		---	800	---		

T b

7. O de Info ma ion

Pa N mbe

OR-M302X-W-Y-Z

o OR-M305X-W-Y-Z

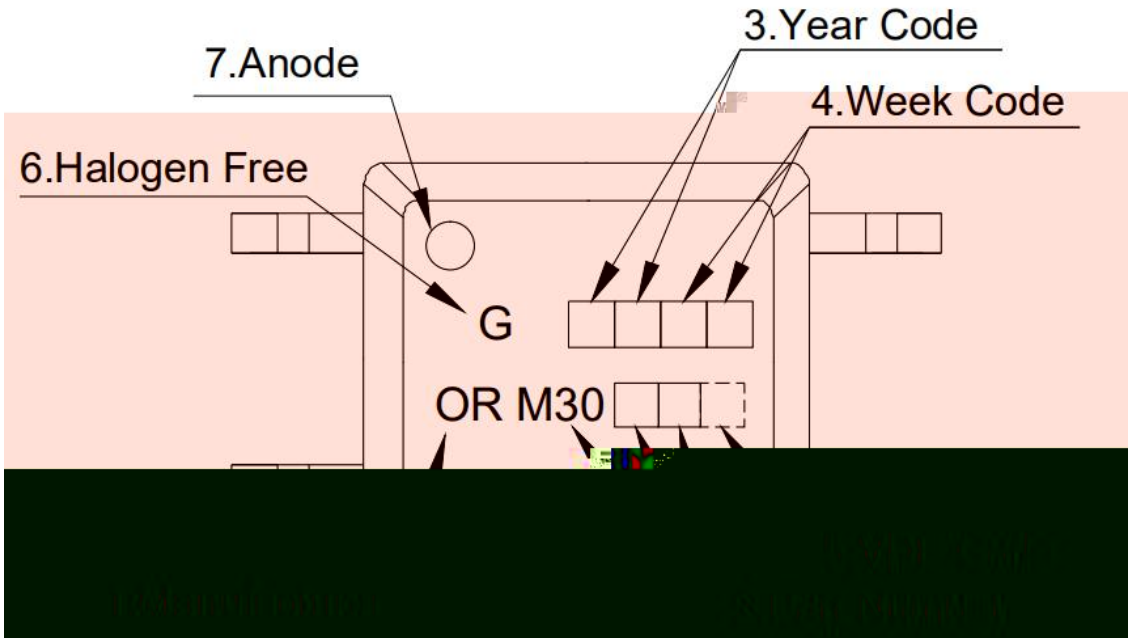
No e

X = Pa N be (0,1,2,3 4)
W = Ta e a d eel i (TP TP1).
Y = V c de f VDE afe (Thi i i ece a).
Z = G c de f Hal ge f ee.

* VDE C de ca be elec ed.

O ion	De c i ion	Packing an i
TP	S face lead f (l file) + TP a e & eel i	3000 i e eel
TP1	S face lead f (l file) + TP1 a e & eel i	3000 i e eel

8. Naming R le

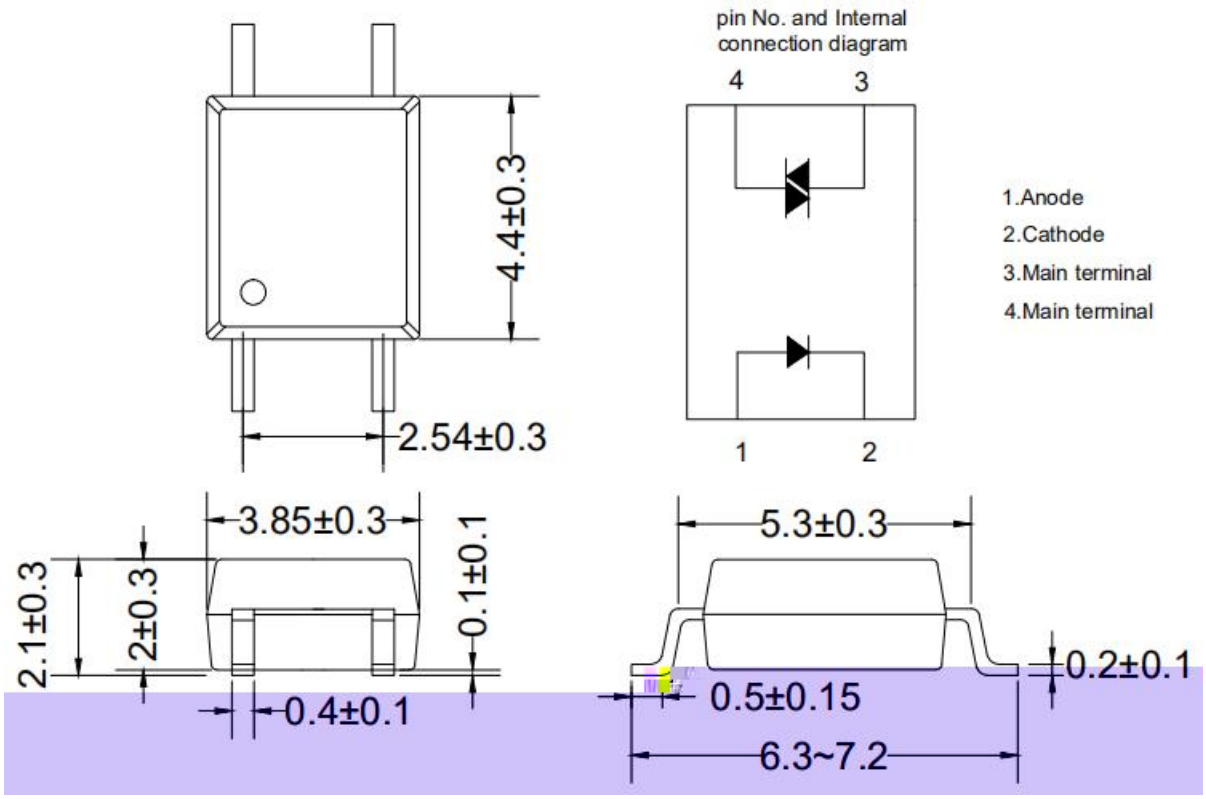


1. Ma fac e : ORIENT.
2. Pa N be : M30□□.
3. Yea C de □□ '21' ea '2021' a d .
4. Week C de □□ 01 ea he fi eek, 02 ea he ec d eek a d .
5. VDE C de ⬚ (O i al)
6. HF C de G : Hal ge F ee.
7. A de.

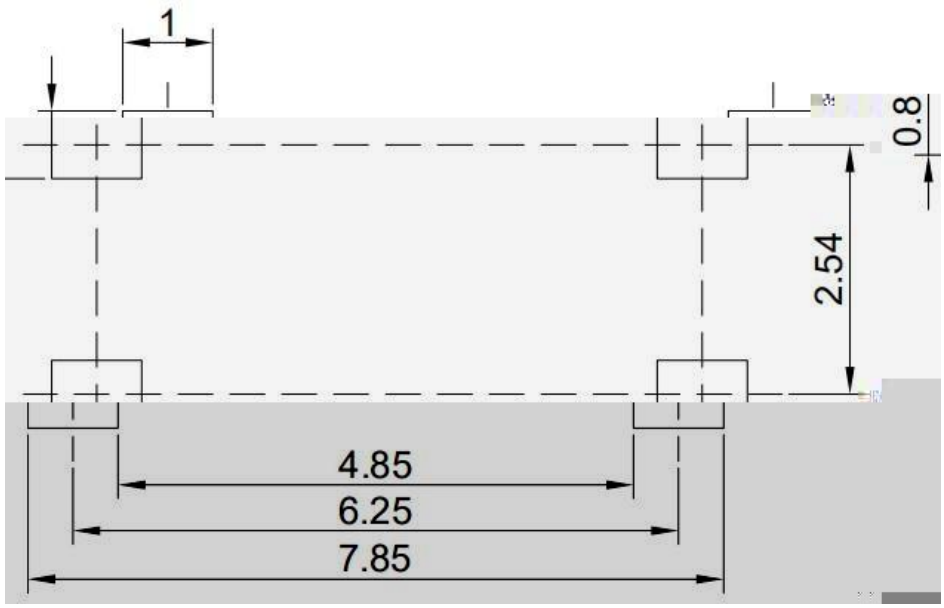
* VDE C de ca be elec ed.

9. Package Dimen ion

OR-M30XX



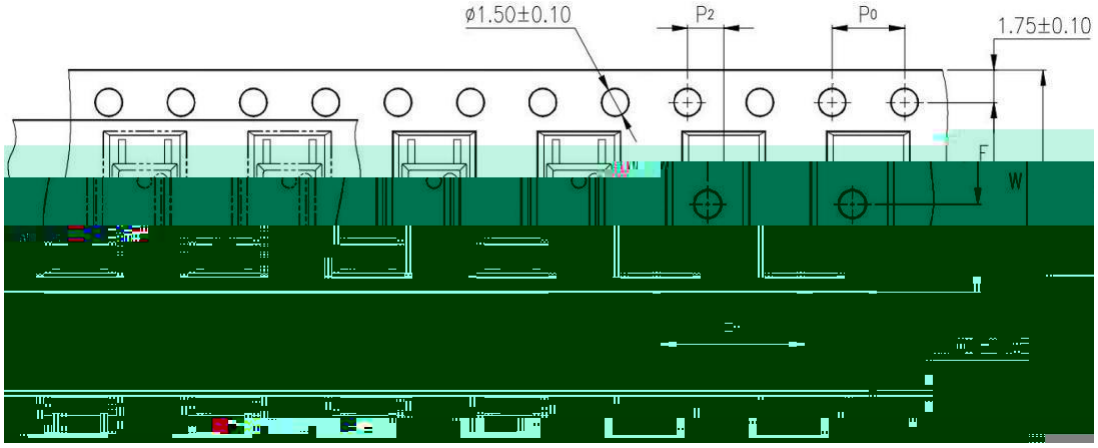
10. Recommended Foo P in Pa e n (Mo n Pad)



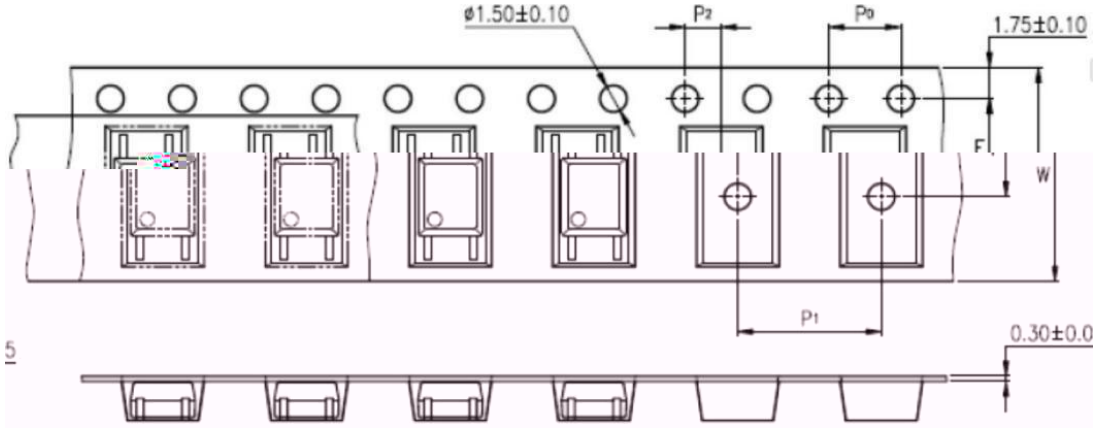
ni mm

11. Ta ing Dimen ion

(1)OR-M30XX-TP



(2)OR-M30XX-TP1



De c i i	S b l	Di e i i (i ch)
Ta e ide	W	12 0.3 0.472
Pi ch f cke h le	P0	4 0.1 0.157
Di a ce f c a e	F	5.5 0.1 0.217
	P2	2 0.1 0.079
Di a ce f c a e c a e	P1	8 0.1 0.315

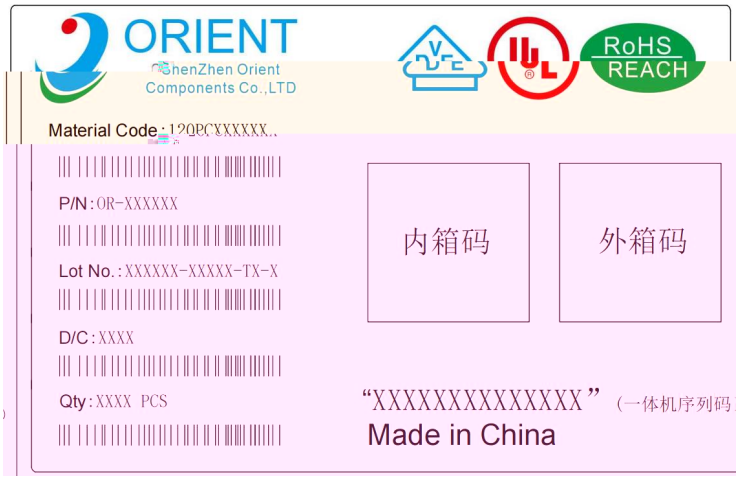
Package T e	TP/TP1
Q a i ie (c)	3000

12. Package Dimen ion

(1) ackage di e i

Packing Info ma ion	
Packi g e	Reel e
Ta e Wid h	12
Q e Reel	3,000 c
S all b (i e) Di e i	345*345*45
La ge b (O e) Di e i	480 360 360
Ma e all b	6,000 c
Ma e la ge b	60,000 c

(2)Packi g Label Sa le



No e

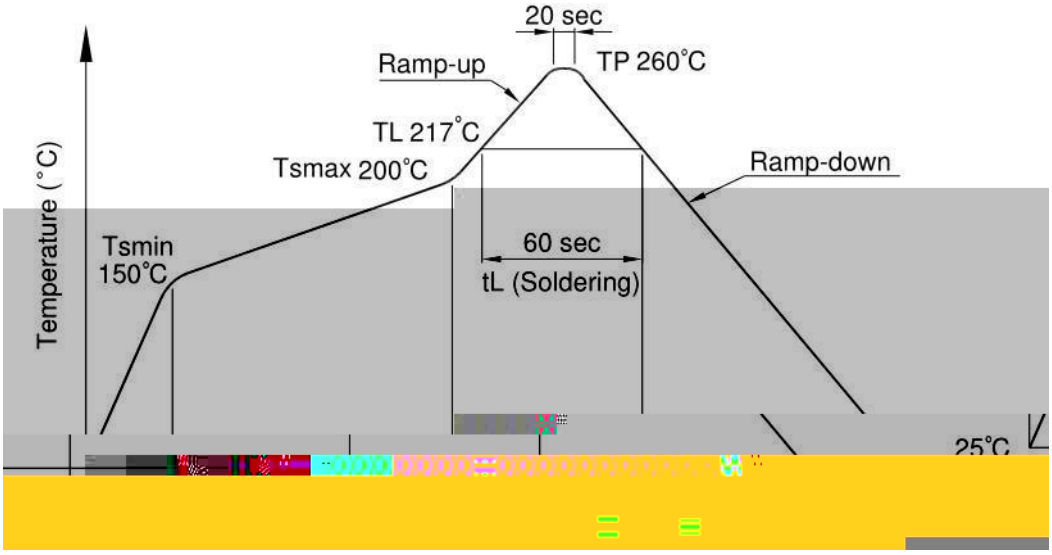
1. Ma e ial C de :P d c ID.
2. P/N :C e i h "O de I f a i " i he ecifica i .
3. L N . :P d c da a.
4. D/C :P d c eek .
5. Q a i :Packagi g a i .

13. Tem e a e P ofile Of Solde ing

1 IR Refl lde i g (JEDEC-STD-020C c lia)

O e i e lde i g efl i ec e ded i hi he c di i f e e a e a d i e file h bel . D lde e ha h ee i e .

P ofile i em	Condi ion
P ehea - Te e a e Mi (T S i)	150 C
- Te e a e Ma (T S a)	200 C
- Ti e (i a) ( )	90 30 ec
S lde i g e - Te e a e (TL)	217 C
- Ti e (L)	60 ec
Peak Te e a e	260 C
Peak Te e a e i e	20 ec
Ra - a e	3 C / ec a .
Ra -d a e f eak e e a e	3 6 C / ec
Refl i e	3



2 Wa e lde i g (JEDEC22A111 c lia)

O e i e lde i g i ec e ded i hi he c di i f e e a e.

Te e a e Ti e	260+0/-5 C 10 ec
P ehea e e a e P ehea i e	5 140 C 30 80 ec

3 Ha d lde i g b lde i g i

All i gle lead lde i g i e e i gle ce . O e i e lde i g i ec e ded.

14. CHARACTERISTICS CURVES (TYPICAL PERFORMANCE)

Fig.1 Forward current vs Ambient temperature

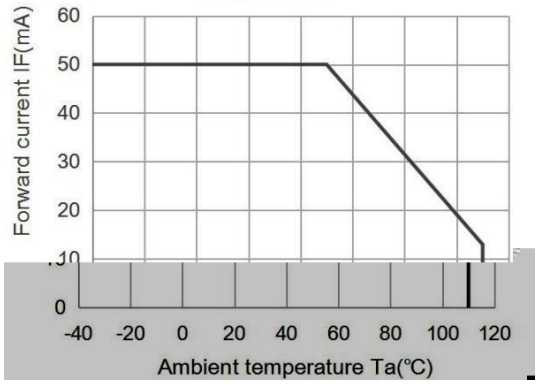


Fig.2 On-state current vs. Ambient temperature

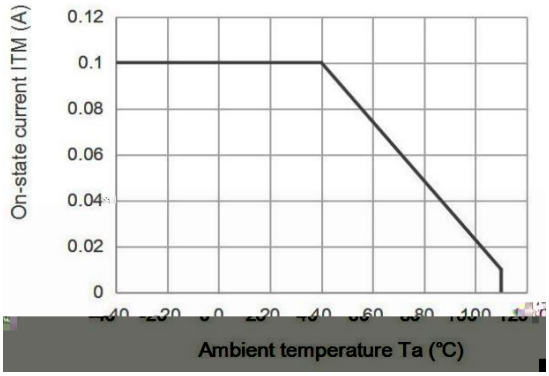


Fig.3 Minimun Trigger Current vs. Ambient temperature

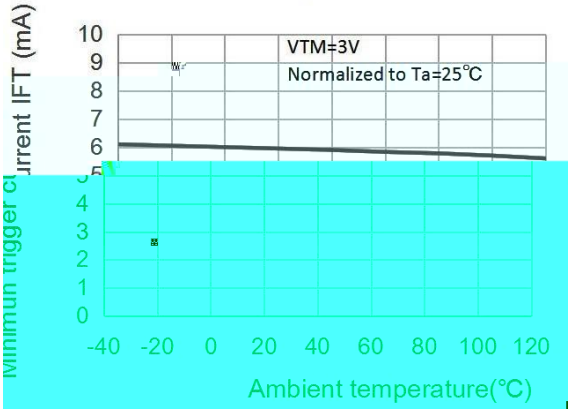


Fig.4 Forward current vs. Forward voltage

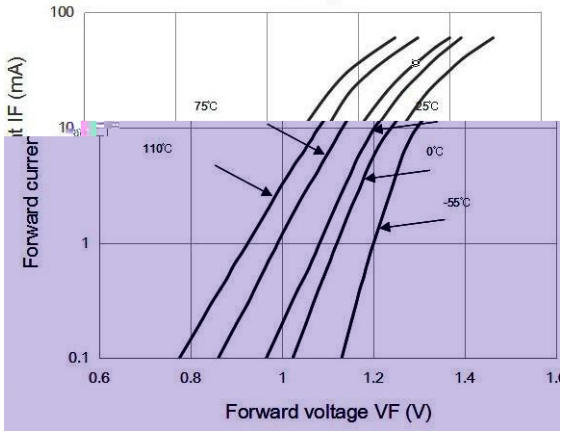


Fig.5 On-state voltage vs. Ambientn temperature

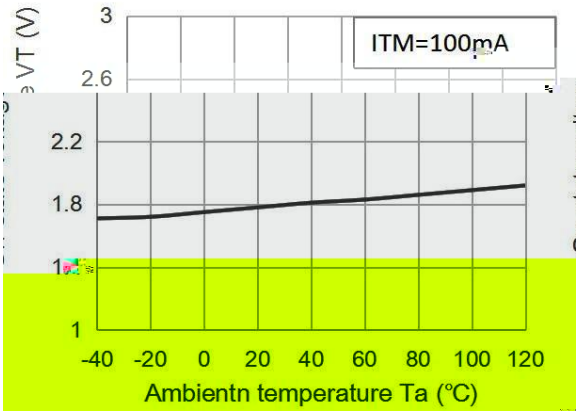


Fig.6 Holding current vs. Ambient temperature

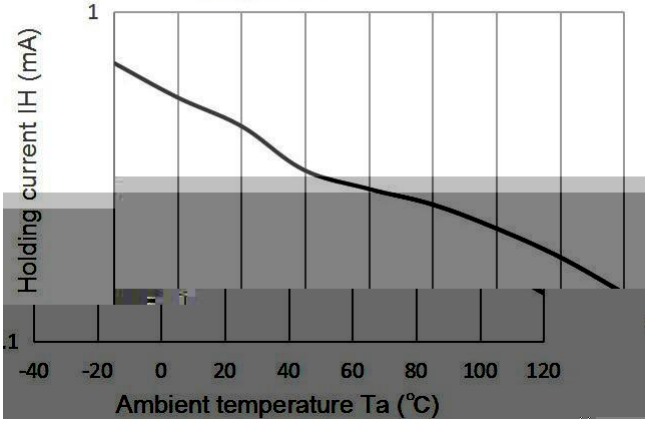


Fig.7 Repetitive peak off-state current vs. T

Fig.8 On-state current vs. On-state voltage

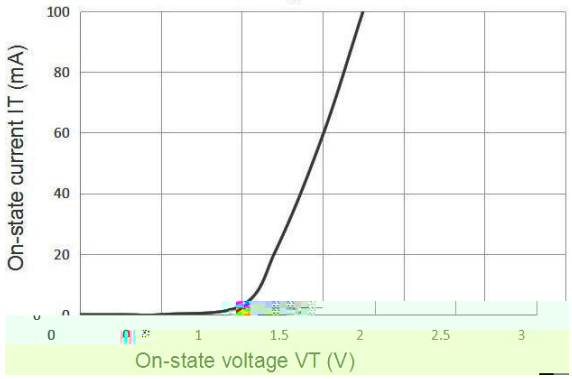


Fig9. Ba ic O e a i Ci c i Medi /High P e T iac D i e Ci c i

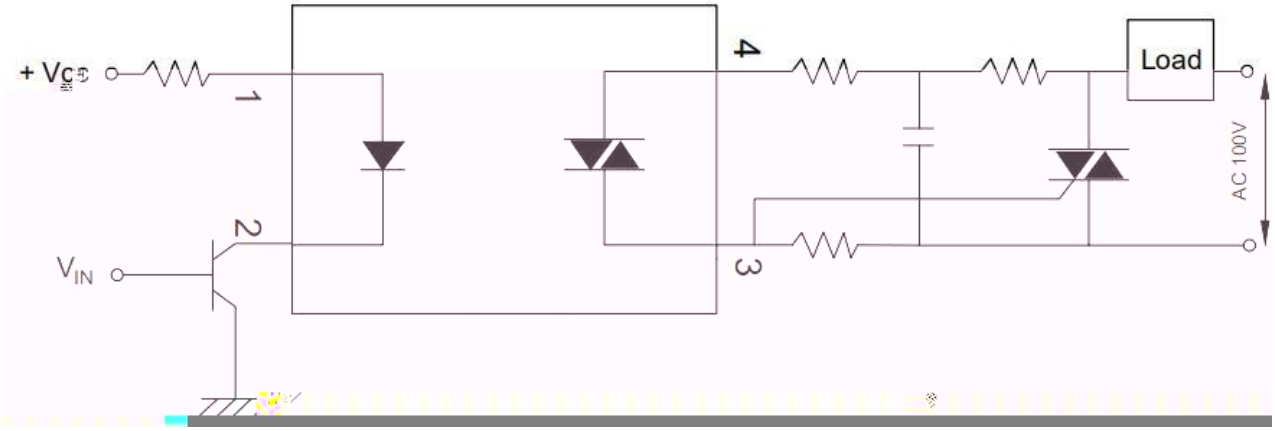
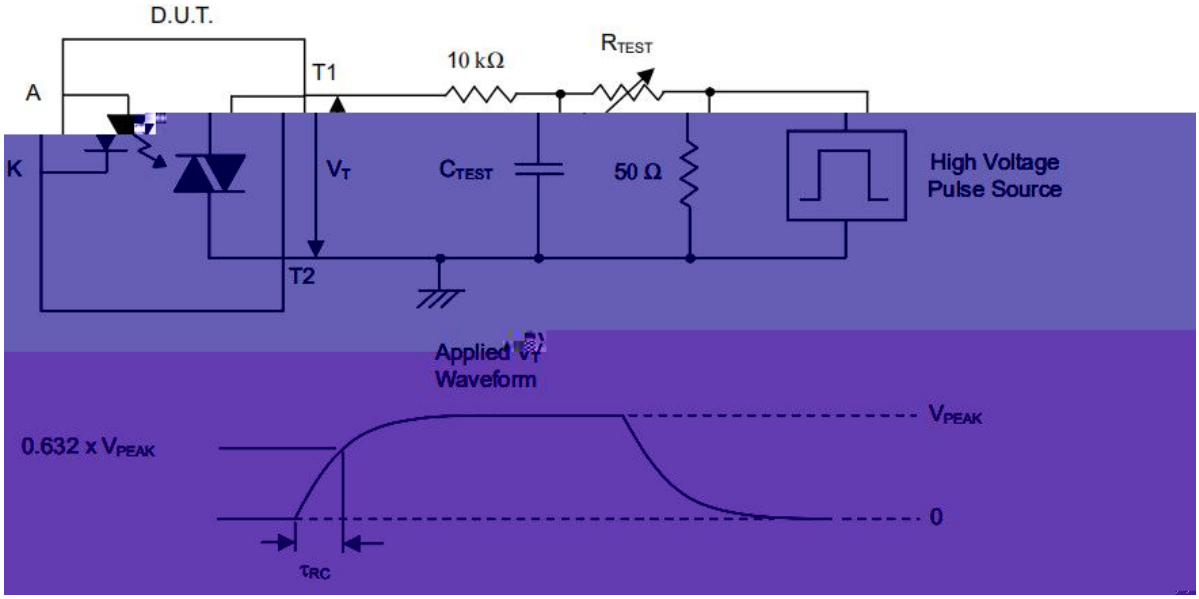


Fig10.S a ic d /d Te Ci c i & Wa ef



Measurement Method