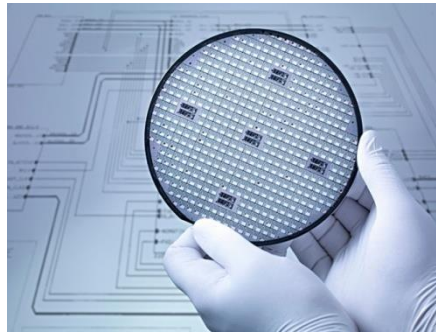


## 80mil TVS 芯片选型



## TVS Diode series



## 080TVS

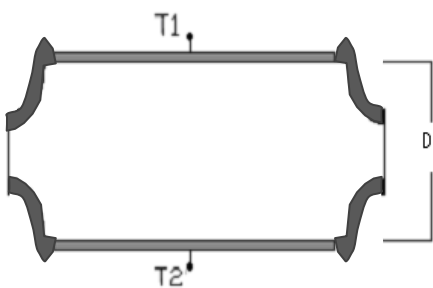
### 描述

TVS 系列产品是一种专门用来保护敏感电子设备免受雷电或者瞬态电压冲击的器件。

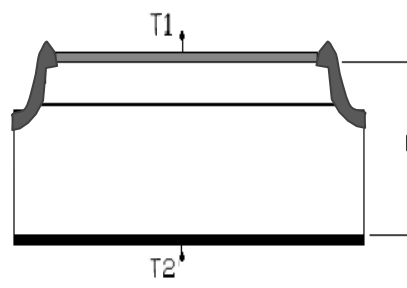
- 低漏电流
- 快速相应速度 (从 0->VBR 响应时间小于 1ps)
- 玻璃钝化结
- 良好的钳位能力
- 承受 600W 峰值脉冲 (10/1000 $\mu$ s)

### 芯片结构图

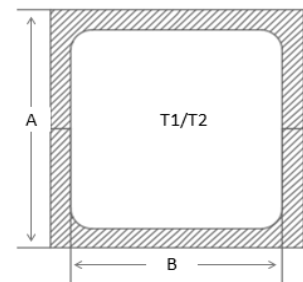
芯片工艺 Wafer tech	台面玻璃钝化工艺	
圆片尺寸 Wafer Size	$\Phi$ 5inch	
芯片厚度 Chip Thickness	D=265 $\pm$ 15 $\mu$ m(可根据客户要求定制)	
金属 (T1/T2) Metal	正面 Front	TiNiAg
	背面 Back	TiNiAg
芯片尺寸 Chip Size	芯片尺寸(A: $\mu$ m) Chip	2032 $\pm$ 50
	电极尺寸(B: $\mu$ m) Pad	1778 $\pm$ 25



(图 1: 双向 TVS 外沟槽结构示意图)



(图 2: 单向 TVS 外沟槽结构示意图)



(图 3: 芯片尺寸示意图)

**芯片电参数-TVS (VR)**

单向	双向	V <sub>RWM</sub>	V <sub>BR</sub> @ I <sub>T</sub>		I <sub>T</sub>	V <sub>c</sub> @ I <sub>pp</sub>	I <sub>pp</sub>	I <sub>R</sub> @ V <sub>RWM</sub>
		(V)	(V)min	(V)max	(mA)	(V) max	(A) min	(μA) max
TP0080-N5V0A2	TP0080-N5V0C1	5	6.4	7	10	9.2	65.2	500
TP0080-N6V0A2	TP0080-N6V0C1	6	6.67	7.37	10	10.3	58.3	500
TP0080-N6V5A2	TP0080-N6V5C1	6.5	7.22	7.98	10	11.2	53.6	100
TP0080-N7V0A2	TP0080-N7V0C1	7	7.8	8.6	10	12	50	50
TP0080-N7V5A2	TP0080-N7V5C1	7.5	8.33	9.21	1	12.9	46.5	50
TP0080-N8V0A2	TP0080-N8V0C1	8	8.89	9.83	1	13.6	44.1	50
TP0080-N8V5A2	TP0080-N8V5C1	8.5	9.44	10.4	1	14.4	41.7	20
TP0080-N9V0A1	TP0080-N9V0C1	9	10	11.1	1	15.4	39	10
TP0080-N010A1	TP0080-N010C1	10	11.1	12.3	1	17	35.3	5
TP0080-N011A1	TP0080-N011C1	11	12.2	13.5	1	18.2	33	1
TP0080-N012A1	TP0080-N012C1	12	13.3	14.7	1	19.9	30.2	1
TP0080-N013A1	TP0080-N013C1	13	14.4	15.9	1	21.5	27.9	1
TP0080-N014A1	TP0080-N014C1	14	15.6	17.2	1	23.2	25.9	1
TP0080-N015A1	TP0080-N015C1	15	16.7	18.5	1	24.4	24.6	1
TP0080-N016A1	TP0080-N016C1	16	17.8	19.7	1	26	23.1	1
TP0080-N017A1	TP0080-N017C1	17	18.9	20.9	1	27.6	21.8	1
TP0080-N018A1	TP0080-N018C1	18	20	22.1	1	29.2	20.6	1
TP0080-N020A1	TN0080-N020C3	20	22.2	24.5	1	32.4	18.6	1
TP0080-N022A1	TN0080-N022C3	22	24.4	26.9	1	35.5	16.9	1
TP0080-N024A1	TN0080-N024C3	24	26.7	29.5	1	38.9	15.4	1
TP0080-N026A1	TN0080-N026C3	26	28.9	31.9	1	42.1	14.3	1
TP0080-N028A1	TN0080-N028C3	28	31.1	34.4	1	45.4	13.2	1
TP0080-N030A1	TN0080-N030C3	30	33.3	36.8	1	48.4	12.4	1
TP0080-N033A1	TN0080-N033C3	33	36.7	40.6	1	53.3	11.3	1
TP0080-N036A1	TN0080-N036C3	36	40	44.2	1	58.1	10.4	1
TP0080-N040A1	TN0080-N040C3	40	44.4	49.1	1	64.5	9.3	1
TP0080-N043A1	TN0080-N043C3	43	47.8	52.8	1	69.4	8.7	1
TP0080-N045A1	TN0080-N045C3	45	50	55.3	1	72.7	8.3	1
TP0080-N048A1	TN0080-N048C3	48	53.3	58.9	1	77.4	7.8	1
TP0080-N051A1	TN0080-N051C3	51	56.7	62.7	1	82.4	7.3	1
TP0080-N054A1	TN0080-N054C3	54	60	66.3	1	87.1	6.9	1
TP0080-N058A1	TN0080-N058C3	58	64.4	71.2	1	93.6	6.4	1
TP0080-N060A1	TN0080-N060C3	60	66.7	73.7	1	96.8	6.2	1
TP0080-N064A1	TN0080-N064C3	64	71.1	80.6	1	103	5.8	1
TN0080-N070A1	TN0080-N070C3	70	77.8	86	1	113	5.3	1
TN0080-N075A1	TN0080-N075C3	75	83.3	92.1	1	121	5	1
TN0080-N080A1	TN0080-N080C3	80	86.7	95.8	1	126	4.8	1
TN0080-N085A1	TN0080-N085C3	85	94.4	104	1	137	4.4	1
TN0080-N090A1	TN0080-N090C3	90	100.0	111.0	1	146	4.1	1
TN0080-N100A4	TN0080-N100C3	100	111.0	123.0	1	162	3.7	1



单向	双向	V <sub>RWM</sub>	V <sub>BR</sub> @ I <sub>T</sub>		I <sub>T</sub>	V <sub>c</sub> @ I <sub>pp</sub>	I <sub>pp</sub>	I <sub>R</sub> @ V <sub>RWM</sub>
		(V)	(V)min	(V)max	(mA)	(V) max	(A) min	(μA) max
TN0080-N110A4	TN0080-N110C3	110	122	135	1	177	3.4	1
TN0080-N120A4	TN0080-N120C3	120	133	147	1	193	3.1	1
TN0080-N130A4	TN0080-N130C3	130	144	159	1	209	2.9	1
TN0080-N150A4	TN0080-N150C3	150	167	185	1	243	2.5	1
TN0080-N160A4	TN0080-N160C3	160	180	197	1	259	2.3	1
TN0080-N170A4	TN0080-N170C3	170	189	209	1	275	2.2	1
TN0080-N180A4	TN0080-N180C3	180	201	222	1	292	2.1	1
TN0080-N200A4	TN0080-N200C3	200	224	247	1	324	1.9	1
TN0080-N220A4	TN0080-N220C3	220	246	272	1	356	1.7	1

**芯片电参数-TVS (VBR)**

单向	双向	$V_{RWM}$	$V_{BR} @ I_T$		$I_T$	$V_C @ I_{pp}$	$I_{pp}$	$I_R @ V_{RWM}$
		(V)	(V)min	(V)max	(mA)	(V) max	(A) min	( $\mu$ A) max
TP0080-P6V8A2	TP0080-P6V8C1	5.8	6.45	7.14	10	10.5	58.1	500
TP0080-P7V5A2	TP0080-P7V5C1	6.4	7.13	7.88	10	11.3	54	100
TP0080-P8V2A2	TP0080-P8V2C1	7.02	7.79	8.61	10	12.1	50.4	100
TP0080-P9V1A2	TP0080-P9V1C1	7.8	8.65	9.55	1	13.4	45.5	20
TP0080-P010A2	TP0080-P010C1	8.55	9.5	10.5	1	14.5	42.1	10
TP0080-P011A2	TP0080-P011C1	9.4	10.5	11.6	1	15.6	39.1	5
TP0080-P012A1	TP0080-P012C1	10.2	11.4	12.6	1	16.7	36.5	1
TP0080-P013A1	TP0080-P013C1	11.1	12.4	13.7	1	18.2	33.5	1
TP0080-P015A1	TP0080-P015C1	12.8	14.3	15.8	1	21.2	28.8	1
TP0080-P016A1	TP0080-P016C1	13.6	15.2	16.8	1	22.5	27.1	1
TP0080-P018A1	TP0080-P018C1	15.3	17.1	18.9	1	25.2	24.2	1
TP0080-P020A1	TP0080-P020C1	17.1	19	21	1	27.7	21.7	1
TP0080-P022A1	TP0080-P022C3	18.8	20.9	23.1	1	30.6	19.7	1
TP0080-P024A1	TN0080-P024C3	20.5	22.8	25.2	1	33.2	18.4	1
TP0080-P027A1	TN0080-P027C3	23.1	25.7	28.4	1	37.5	16.3	1
TP0080-P030A1	TN0080-P030C3	25.6	28.5	31.5	1	41.4	14.7	1
TP0080-P033A1	TN0080-P033C3	28.2	31.4	34.7	1	45.7	13.3	1
TP0080-P036A1	TN0080-P036C3	30.8	34.2	37.8	1	49.9	12.2	1
TP0080-P039A1	TN0080-P039C3	33.3	37.1	41	1	53.9	11.3	1
TP0080-P043A1	TN0080-P043C3	36.8	40.9	45.2	1	59.3	10.3	1
TP0080-P047A1	TN0080-P047C3	40.2	44.7	49.4	1	64.8	9.4	1
TP0080-P051A1	TN0080-P051C3	43.6	48.5	53.6	1	70.1	8.7	1
TP0080-P056A1	TN0080-P056C3	47.8	53.2	58.8	1	77	7.9	1
TP0080-P062A1	TN0080-P062C3	53	58.9	65.1	1	85	7.2	1
TP0080-P068A1	TN0080-P068C3	58.1	64.6	71.4	1	92	6.6	1
TP0080-P075A1	TN0080-P075C3	64.1	71.3	80.8	1	103	5.9	1
TN0080-P082A1	TN0080-P082C3	70.1	77.9	86.1	1	113	5.4	1
TN0080-P091A1	TN0080-P091C3	77.8	86.5	95.5	1	125	4.9	1
TN0080-P100A1	TN0080-P100C3	85.5	95	105	1	137	4.5	1
TN0080-P110A4	TN0080-P110C3	94	105	116	1	152	4	1
TN0080-P120A4	TN0080-P120C3	102	114	126	1	165	3.7	1
TN0080-P130A4	TN0080-P130C3	111	124	137	1	179	3.4	1
TN0080-P150A4	TN0080-P150C3	128	143	158	1	207	2.9	1
TN0080-P160A4	TN0080-P160C3	136	152	168	1	219	2.8	1
TN0080-P170A4	TN0080-P170C3	145	162	179	1	234	2.6	1
TN0080-P180A4	TN0080-P180C3	154	171	189	1	246	2.5	1
TN0080-P200A4	TN0080-P200C3	171	190	210	1	274	2.2	1
TN0080-P220A4	TN0080-P220C3	185	209	231	1	328	1.9	1