



ORDERING CODE

JV R 07 N 181 K 6 5 Y AW

Joyin ZnO Varistor  
久尹氧化鋅壓敏電阻

R=RoHS  
H=RoHS + Halogen free  
+ Non Flammable

Element Size (disc dia.)  
瓷片直徑別

- 05 =  $\phi$  5mm
- 07 =  $\phi$  7mm
- 10 =  $\phi$  10mm
- 14 =  $\phi$  14mm
- 20 =  $\phi$  20mm

Series 系列別  
N=Standard 標準系列  
S=High Surge 高突波電流系列  
U=Ultra Surge 超高突波電流系列

Varistor Voltage 電壓值

• The first two digits indicate voltage.  
前兩位數字代表電壓

The third digit signifies the number of zeroes.  
第三位數字代表電壓0的次數

for example 例如：

- 080=8V
- 180=18V
- 181=180V
- 182=1800V

Varistor Voltage Tolerance  
壓敏電壓容許差

- K =  $\pm$  10%
- L =  $\pm$  15%
- M =  $\pm$  20%
- P =  $\pm$  25%

Lead Diameter  
線徑

- 6 =  $0.6 \pm 0.05$ mm
- 8 =  $0.8 \pm 0.05$ mm
- 1 =  $1.0 \pm 0.05$ mm

Lead Length & Packaging  
腳長及包裝方式

- 50 =  $5 \pm 1.0$ mm for Straight lead  
5  $\pm$  0.5mm for Kink lead
- U4 = 24mm min. for Bulk and Kink lead
- U5 = 25mm min. for Bulk and Straight lead
- AW= H0 16mm for Ammo and Kink lead
- AY = H0 20mm for Ammo and Straight lead
- RW= H0 16mm for T/R and Kink lead
- RY = H0 20mm for T/R and Straight lead

\* Special spec per request.

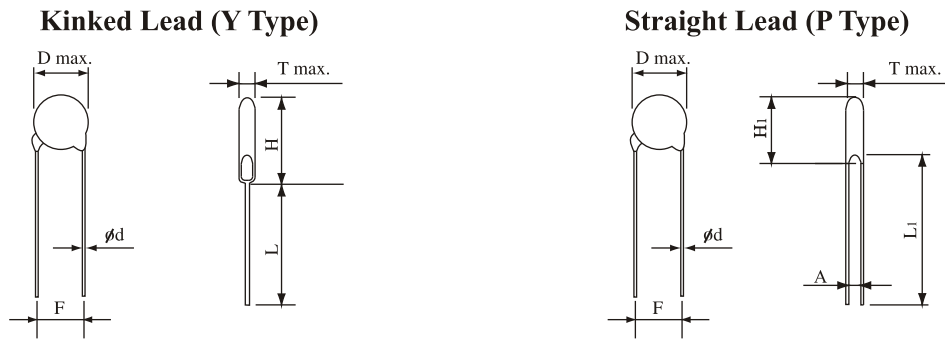
Lead Style 腳型

- Y=Vertical Kink Lead (standard)
- P=Straight Lead

\* Special lead styles per request

Lead Spacing 線距

- 5=5.0mm
- 7=7.5mm
- 1=10mm



Dimension Table

unit:mm

Diameter	5mm	7mm	10mm	14mm	20mm
D max.	7.5	9.0	12.5	16.5	23
d±0.05	0.6	0.6	0.8	0.8	1.0
F±1.0	5.0	5.0	7.5	7.5	10.0
H max.	11.0	13	18/*19	22/*23	28/*29
L <sub>1</sub> min.	25.0	25.0	25.0	25.0	25.0
L min.	24.0	24.0	24.0	24.0	24.0

\*Just for 182K

Table of T max., A & H<sub>1</sub> max.

unit:mm

Diameter	5mm			7mm			10mm			14mm			20mm		
	Type No.	T max.	A±0.8	H <sub>1</sub> max.	T max.	A±0.8	H <sub>1</sub> max.	T max.	A±0.8	H <sub>1</sub> max.	T max.	A±0.8	H <sub>1</sub> max.	T max.	A±0.8
180M	4.5	0.8	10.5	4.5	0.8	12.0	4.9	0.8	15.5	5.0	0.9	19.5	-	-	-
220M/L	4.5	0.9	10.5	4.5	0.9	12.0	4.9	0.9	15.5	5.0	1.0	19.5	5.3	1.0	26.5
270M/K	4.7	0.9	10.5	4.7	0.9	12.0	5.1	0.9	15.5	5.2	1.1	19.5	5.4	1.1	26.5
330M/K	4.7	1.0	10.5	4.7	1.0	12.0	5.1	1.0	15.5	5.2	1.2	19.5	5.4	1.2	26.5
390L/K	4.7	1.2	10.5	4.7	1.2	12.0	5.1	1.2	15.5	5.2	1.4	19.5	5.4	1.4	26.5
470L/K	5.0	1.2	10.5	5.0	1.2	12.0	5.5	1.2	15.5	5.6	1.4	19.5	5.6	1.4	26.5
560L/K	5.0	1.4	10.5	5.0	1.4	12.0	5.5	1.4	15.5	5.6	1.6	19.5	5.6	1.6	26.5
680L/K	5.5	1.7	10.5	5.5	1.7	12.0	6.0	1.7	15.5	6.1	1.9	19.5	6.1	1.9	26.5
820K	3.8	0.8	10.5	3.8	0.8	12.0	4.3	0.8	15.5	4.4	1.0	19.5	-	-	-
101K	3.9	0.8	10.5	3.9	0.8	12.0	4.4	0.8	15.5	4.5	1.0	19.5	5.1	1.2	26.5
121K	4.1	0.9	10.5	4.1	0.9	12.0	4.5	0.9	15.5	4.6	1.1	19.5	5.3	1.3	26.5
151K	4.5	1.2	10.5	4.5	1.2	12.0	4.9	1.2	15.5	5.1	1.4	19.5	5.6	1.6	26.5
181K	4.1	1.0	10.5	4.1	1.0	12.0	4.5	1.0	15.5	4.7	1.2	19.5	5.2	1.4	26.5
201K	4.2	1.0	10.5	4.2	1.0	12.0	4.6	1.0	15.5	4.8	1.2	19.5	5.3	1.4	26.5
221K	4.3	1.1	10.5	4.3	1.1	12.0	4.7	1.1	15.5	4.9	1.3	19.5	5.4	1.5	26.5
241K	4.4	1.1	10.5	4.4	1.3	12.0	4.8	1.3	15.5	5.0	1.5	19.5	5.5	1.7	26.5
271K	4.6	1.3	10.5	4.6	1.4	12.0	5.0	1.4	15.5	5.2	1.5	19.5	5.7	1.9	26.5
301K	4.8	1.3	10.5	4.8	1.5	12.0	5.2	1.6	15.5	5.4	1.7	19.5	5.9	2.1	26.5
331K	4.9	1.3	10.5	4.9	1.5	12.0	5.3	1.6	15.5	5.5	1.7	19.5	6.0	2.1	26.5
361K	5.1	1.8	10.5	5.1	1.9	12.0	5.5	1.9	15.5	5.7	2.1	19.5	6.2	2.3	26.5
391K	5.3	2.0	11.0	5.3	2.0	12.5	5.7	2.2	16.0	5.9	2.2	20.0	6.4	2.4	26.5
431K	6.1	2.1	11.0	6.1	2.0	12.5	6.5	2.5	16.0	6.7	2.5	20.0	7.2	2.7	26.5
471K	6.4	2.2	11.0	6.4	2.3	12.5	6.8	2.6	16.0	7.0	2.7	20.0	7.5	2.9	27.0
511K	6.6	2.5	11.5	6.6	2.5	13.0	7.0	3.1	16.5	7.2	3.1	20.5	7.7	3.3	27.0
561K	6.9	2.8	11.5	6.9	2.8	13.0	7.3	3.4	16.5	7.5	3.4	20.5	8.0	3.6	27.0
621K	7.2	3.1	11.5	7.2	3.1	13.0	7.6	4.0	16.5	7.8	3.8	20.5	8.3	4.1	27.0
681K	7.5	3.4	11.5	7.5	3.4	13.0	8.0	4.4	16.5	8.2	4.1	20.5	8.7	4.4	27.0
751K	7.9	3.7	11.5	7.9	3.7	13.0	8.4	4.4	16.5	8.6	4.3	20.5	9.1	4.5	27.0
781K	-	-	-	8.1	3.9	13.0	8.6	4.6	16.5	8.8	4.6	20.5	9.3	4.8	27.0
821K	-	-	-	8.3	4.1	13.0	8.8	4.6	16.5	9.0	4.6	20.5	9.5	4.8	27.0
911K	-	-	-	-	-	-	9.4	5.4	16.5	9.6	5.4	20.5	10.1	5.7	27.0
102K	-	-	-	-	-	-	9.9	5.4	16.5	10.1	5.6	20.5	10.7	5.8	27.0
112K	-	-	-	-	-	-	10.5	5.7	16.5	10.7	6.1	20.5	11.2	6.3	27.0
182K	-	-	-	-	-	-	12.6	9.8	18.5	12.8	10.2	22.5	13.5	10.4	29.0



**RATING AND CHARACTERISTICS**

**Standard Varistor - 7mm**

Ordering Code	Varistor Voltage at 1 mA		Maximum Allowable Voltage		Maximum Clamping Voltage	Withstanding Surge Current (8/20 μs)		Rated Wattage (W)	Energy (10/1000 μs) (J)	Certification (ref to p.20)
	DC (V)	Tolerance	ACrms (V)	DC (V)	V@10A (V)	1 Time (A)	2 Times (A)			
JV◇07N180M65□△△	18	± 20%	11	14	※ 36	250	125	0.02	1.2	☆ ☆
JV◇07N220L65□△△	22	± 15%	14	18	※ 43				1.4	☆ ☆
JV◇07N270K65□△△	27	± 10%	17	22	※ 53				1.7	☆ ☆
JV◇07N330K65□△△	33		20	26	※ 65				2.2	☆ ☆
JV◇07N390K65□△△	39		25	31	※ 77				2.4	☆ ☆
JV◇07N470K65□△△	47		30	38	※ 93				3.0	☆ ☆
JV◇07N560K65□△△	56		35	45	※ 110				3.5	☆ ☆
JV◇07N680K65□△△	68		40	56	※ 135				4.3	☆ ☆
JV◇07N820K65□△△	82		50	65	135	5.5	☆ ☆			
JV◇07N101K65□△△	100		60	85	165	7.0	☆ ☆			
JV◇07N121K65□△△	120	75	100	200	8.0	☆ ☆				
JV◇07N151K65□△△	150	95	125	250	11.0	☆ ☆				
JV◇07N181K65□△△	180	115	150	300	13.0	☆ ☆				
JV◇07N201K65□△△	200	130	170	340	14.3	☆ ☆ ☆ ☆				
JV◇07N221K65□△△	220	140	180	360	15.5	☆ ☆ ☆ ☆				
JV◇07N241K65□△△	240	150	200	395	16.8	☆ ☆ ☆ ☆				
JV◇07N271K65□△△	270	175	225	455	19.8	☆ ☆ ☆ ☆				
JV◇07N301K65□△△	300	195	250	505	21.0	☆ ☆ ☆ ☆				
JV◇07N331K65□△△	330	210	275	550	23.0	☆ ☆ ☆ ☆				
JV◇07N361K65□△△	360	230	300	595	26.0	☆ ☆ ☆ ☆				
JV◇07N391K65□△△	390	250	320	650	30.0	☆ ☆ ☆ ☆				
JV◇07N431K65□△△	430	275	350	710	33.0	☆ ☆ ☆ ☆				
JV◇07N471K65□△△	470	300	385	775	35.0	☆ ☆ ☆ ☆				
JV◇07N511K65□△△	510	320	418	842	37.0	☆ ☆ ☆ ☆				
JV◇07N561K65□△△	560	350	460	920	39.0	☆ ☆ ☆ ☆				
JV◇07N621K65□△△	620	385	505	1025	41.0	☆ ☆ ☆ ☆				
JV◇07N681K65□△△	680	420	560	1120	43.0	☆ ☆ ☆ ☆				
JV◇07N751K65□△△	750	460	615	1240	45.0	☆ ☆ ☆ ☆				
JV◇07N781K65□△△	780	485	640	1290	46.0	☆ ☆ ☆ ☆				
JV◇07N821K65□△△	820	510	670	1355	47.0	☆ ☆ ☆ ☆				

※ The clamping voltage from 180M to 680K are tested at current 2.5 A.

◇ : R=RoHS, H=RoHS+Halogen free +Non flammable

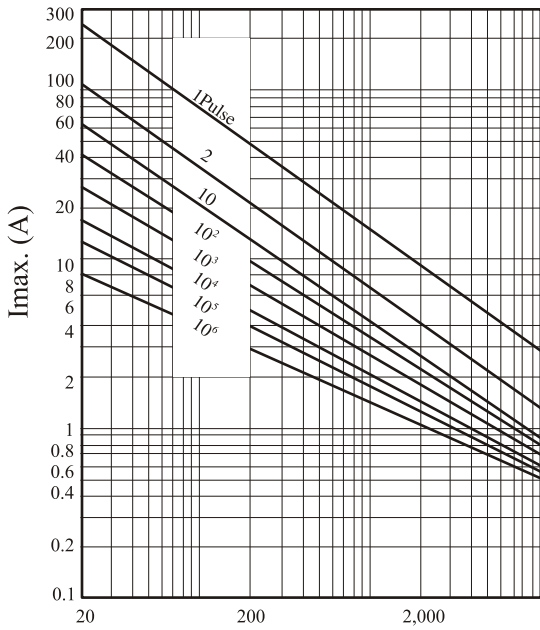
□ : Lead Style ( Y=Vertical kink, P=Straight )

△△ : Lead Length & Packaging (see p.18)

**PULSE LIFETIME RATINGS -7mm**

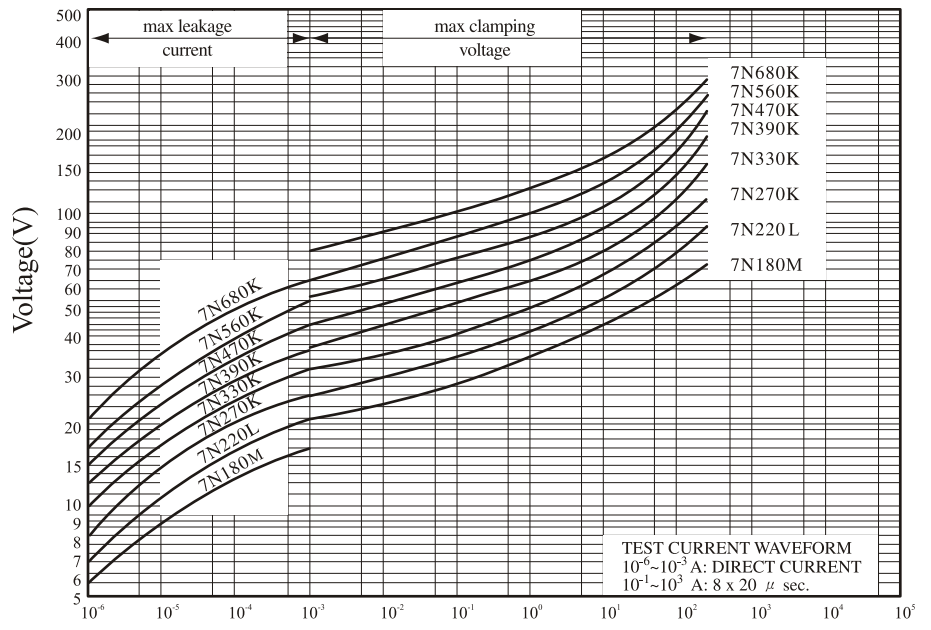
**V-I CHARACTERISTIC CURVE -7mm**

**7N180M~680K**



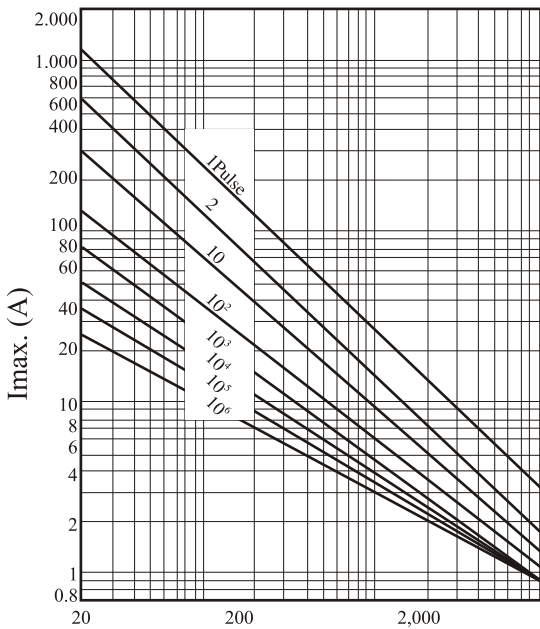
Rectangular Wave ( $\mu$  sec.)

**7N180M~680K**



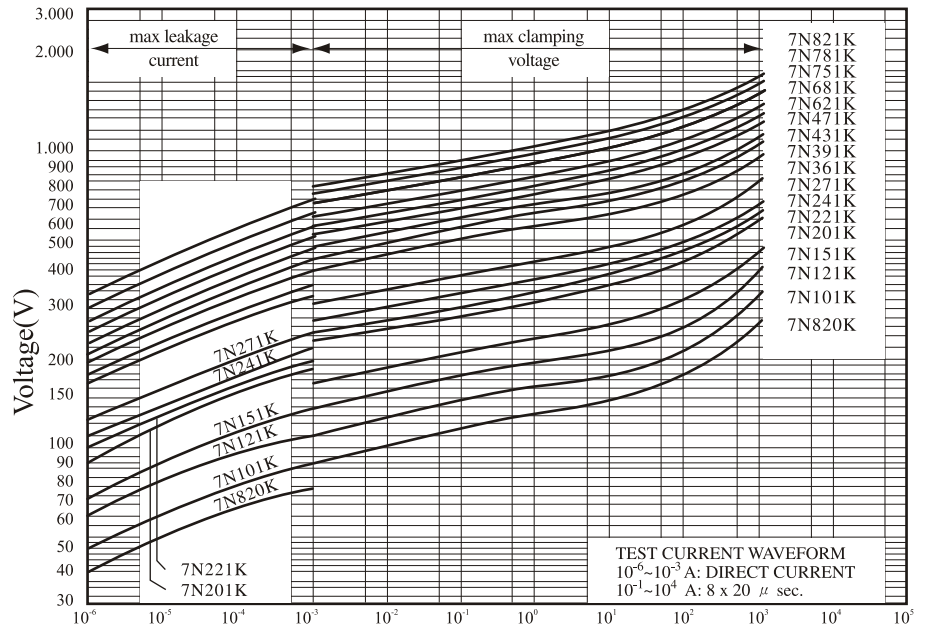
Current(A)

**7N820K~821K**



Rectangular Wave ( $\mu$  sec.)

**7N820K~821K**



Current(A)