



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 = ϕ 5mm
- 07 = ϕ 7mm
- 10 = ϕ 10mm
- 14 = ϕ 14mm
- 20 = ϕ 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 ± 0.05 mm
- 8 = 0.8 ± 0.05 mm
- 1 = 1.0 ± 0.05 mm

Lead Length & Packaging
腳長及包裝方式

- 50 = 5 ± 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.

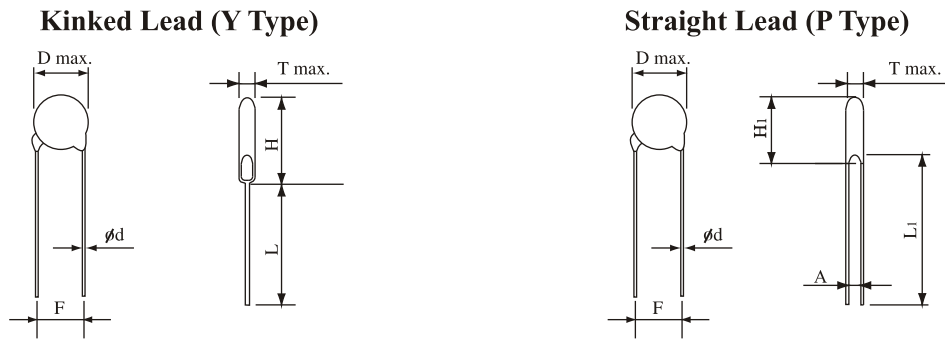
Lead Style 腳型

- 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 ₁ 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 & H₁ max.

unit:mm

Diameter	5mm			7mm			10mm			14mm			20mm		
	Type No.	T max.	A±0.8	H ₁ max.	T max.	A±0.8	H ₁ max.	T max.	A±0.8	H ₁ max.	T max.	A±0.8	H ₁ 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 - 20mm

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@100A (V)	1 Time (A)	2 Times (A)						
JV◇20N220M11□△△	22	± 20%	14	18	※ 43	2000	1000	0.2	8.0	☆ ☆			
JV◇20N270M11□△△	27		17	22	※ 53				10.0	☆ ☆			
JV◇20N330M11□△△	33		20	26	※ 65				12.0	☆ ☆			
JV◇20N390L11□△△	39	± 15%	25	31	※ 77				6500	4000	1.0	14.0	☆ ☆
JV◇20N470L11□△△	47		30	38	※ 93							17.0	☆ ☆
JV◇20N560L11□△△	56		35	45	※ 110							20.0	☆ ☆
JV◇20N680L11□△△	68		40	56	※ 135							24.0	☆ ☆
JV◇20N101K11□△△	100	± 10%	60	85	165	6500	4000	1.0				56.0	☆ ☆
JV◇20N121K11□△△	120		75	100	200							64.0	☆ ☆
JV◇20N151K11□△△	150		95	125	250							88.0	☆ ☆
JV◇20N181K11□△△	180		115	150	300							104.0	☆ ☆
JV◇20N201K11□△△	200		130	170	340							114.0	☆ ☆ ☆ ☆
JV◇20N221K11□△△	220		140	180	360							124.0	☆ ☆ ☆ ☆
JV◇20N241K11□△△	240		150	200	395							134.0	☆ ☆ ☆ ☆
JV◇20N271K11□△△	270		175	225	455							158.0	☆ ☆ ☆ ☆
JV◇20N301K11□△△	300		195	250	505							168.0	☆ ☆ ☆ ☆
JV◇20N331K11□△△	330		210	275	550							184.0	☆ ☆ ☆ ☆
JV◇20N361K11□△△	360		230	300	595							208.0	☆ ☆ ☆ ☆
JV◇20N391K11□△△	390		250	320	650							240.0	☆ ☆ ☆ ☆
JV◇20N431K11□△△	430		275	350	710							264.0	☆ ☆ ☆ ☆
JV◇20N471K11□△△	470		300	385	775							280.0	☆ ☆ ☆ ☆
JV◇20N511K11□△△	510		320	418	842							296.0	☆ ☆ ☆ ☆
JV◇20N561K11□△△	560		350	460	920							312.0	☆ ☆ ☆ ☆
JV◇20N621K11□△△	620		385	505	1025							328.0	☆ ☆ ☆ ☆
JV◇20N681K11□△△	680		420	560	1120							344.0	☆ ☆ ☆ ☆
JV◇20N751K11□△△	750		460	615	1240							360.0	☆ ☆ ☆ ☆
JV◇20N781K11□△△	780		485	640	1290				368.0	☆ ☆ ☆ ☆			
JV◇20N821K11□△△	820		510	670	1355				376.0	☆ ☆ ☆ ☆			
JV◇20N911K11□△△	910		550	745	1500				408.0	☆ ☆ ☆ ☆			
JV◇20N102K11□△△	1000		625	825	1650				448.0	☆ ☆ ☆ ☆			
JV◇20N112K11□△△	1100	680	895	1815	496.0	☆ ☆ ☆ ☆							
JV◇20N182K11□△△	1800	1000	1465	2970	695.0	☆ ☆ ☆ ☆							

※ The clamping voltage from 220M to 680L are tested at current 20A.

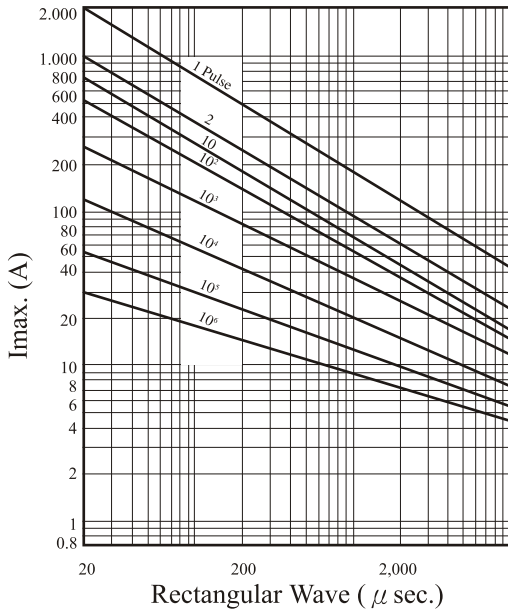
◇ : R=RoHS, H=RoHS+Halogen free +Non flammable

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

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

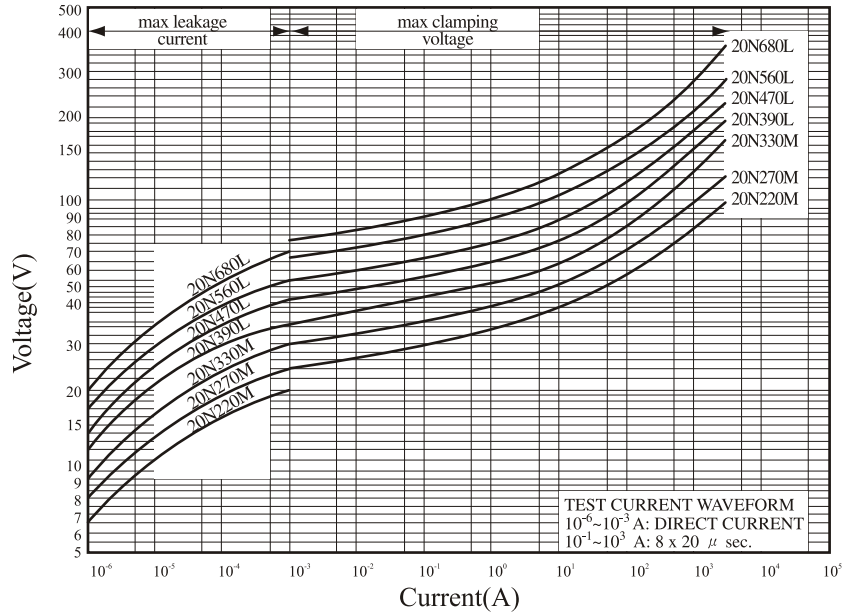
PULSE LIFETIME RATINGS - 20mm

20N220M ~ 680L

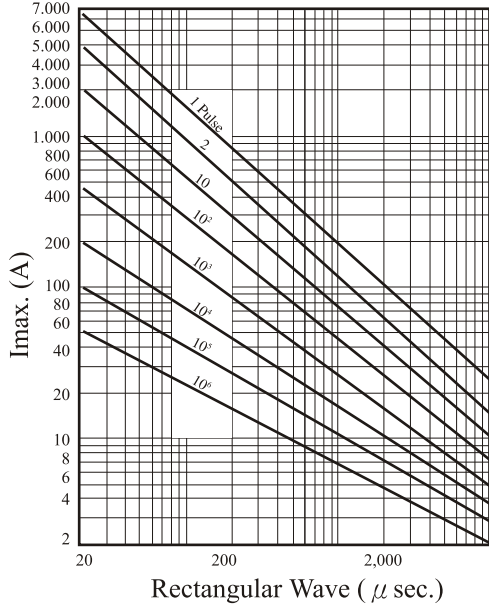


V-I CHARACTERISTIC CURVE - 20mm

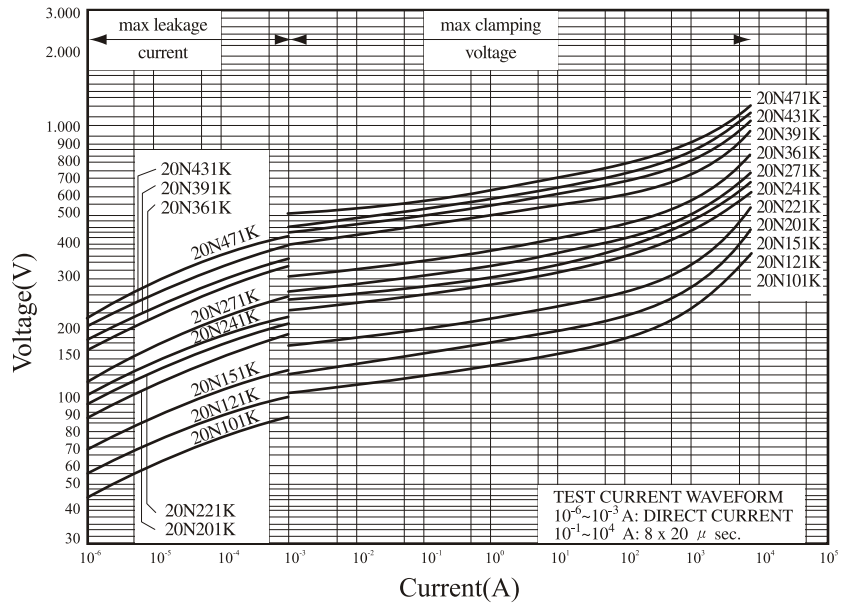
20N220M ~ 680L



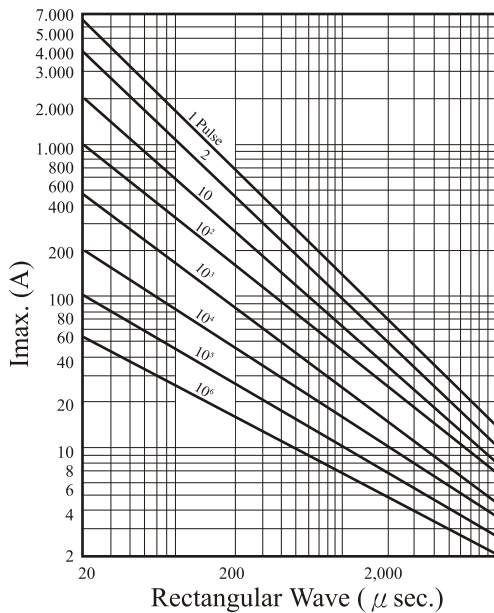
20N101K ~ 471K



20N101K ~ 471K



20N511K ~ 182K



20N561K ~ 182K

