

The high surge type S series of Metal Oxide Varistor (MOV) are radial lead varistors (also known as Voltage Dependent Resistors or VDRs) that are designed to be used continuously across AC line primary or DC circuit for transient voltage and surge suppression.

Operating Temperature -40°C~+85°C



RECOGNITION : made for RFE by UL shop Joyin

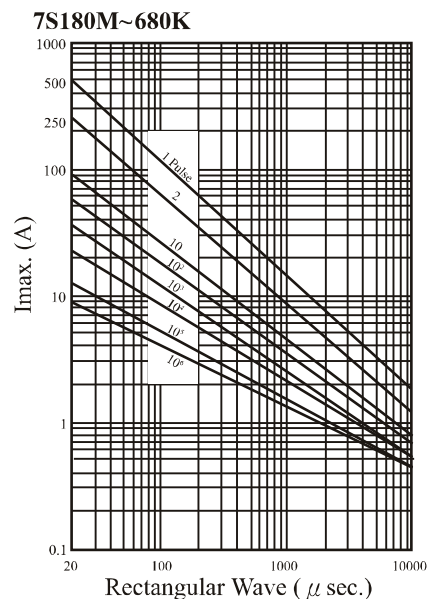
Agency	File Number	Monogram
UL/cUL	E325508	
VDE	Certificate No. 005937	
CQC	CQC07001019159 /9161/9162/9163/9164	

CHARACTERISTICS & RATINGS

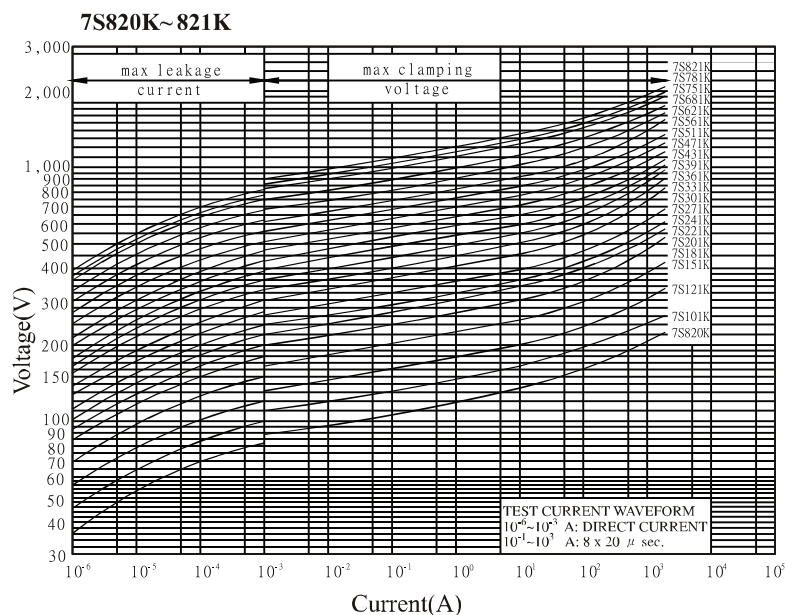
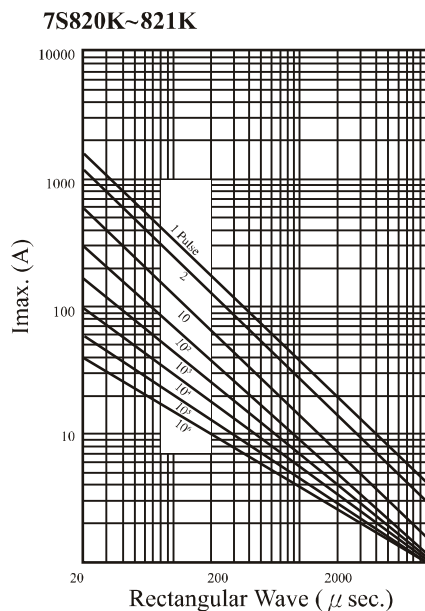
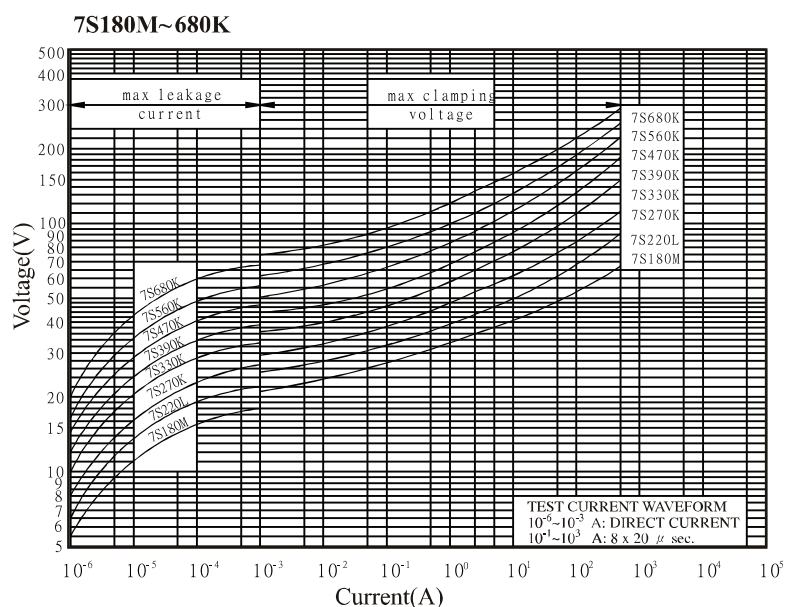
Part Number	Varistor Voltage at 0.1mA		Maximum Allowable Voltage		Maximum Clamping Voltage		Withstanding Surge Current (8/20μs)	Nominal Discharge Current (8/20μs)	Rated Wattage	Energy (10/1000μs)
	DC (V)	Tolerance	AC rms (V)	DC (V)	V @ ic (V)	ic (A)	1 Time (A)	In (KA)	(W)	(J)
JVR07S180M65***	18	20%	11	14	36	2.5	500	0.2	0.02	1.5
JVR07S220L65***	22	15%	14	18	43					1.7
JVR07S270K65***	27	10%	17	22	53					2.1
JVR07S330K65***	33		20	26	65					2.8
JVR07S390K65***	39		25	31	77					3
JVR07S470K65***	47		30	38	93					3.8
JVR07S560K65***	56		35	45	110					4.4
JVR07S680K65***	68		40	56	135					5.4
JVR07S820K65***	82		50	65	135	10	1750	1	0.25	7
JVR07S101K65***	100		60	85	165					9
JVR07S121K65***	120		75	100	200					11
JVR07S151K65***	150		95	125	250					13
JVR07S181K65***	180		115	150	300					16
JVR07S201K65***	200		130	170	340					17.5
JVR07S221K65***	220		140	180	360					19
JVR07S241K65***	240		150	200	395					21
JVR07S271K65***	270		175	225	455					24
JVR07S301K65***	300		195	250	505					26
JVR07S331K65***	330		210	275	550					28
JVR07S361K65***	360		230	300	595					32
JVR07S391K65***	390		250	320	650					35
JVR07S431K65***	430		275	350	710					40
JVR07S471K65***	470		300	385	775					42
JVR07S511K65***	510		320	418	842					45
JVR07S561K65***	560		350	460	920					51
JVR07S621K65***	620		385	505	1025					54
JVR07S681K65***	680		420	560	1120					56
JVR07S751K65***	750		460	615	1240					58
JVR07S781K65***	780		485	640	1290					59
JVR07S821K65***	820		510	670	1355					60

*** Replace with Lead & Packaging code

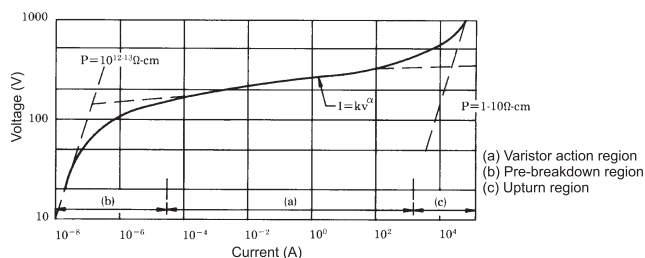
7mm PULSE LIFETIME RATINGS



7mm V-I CHARACTERISTIC CURVE

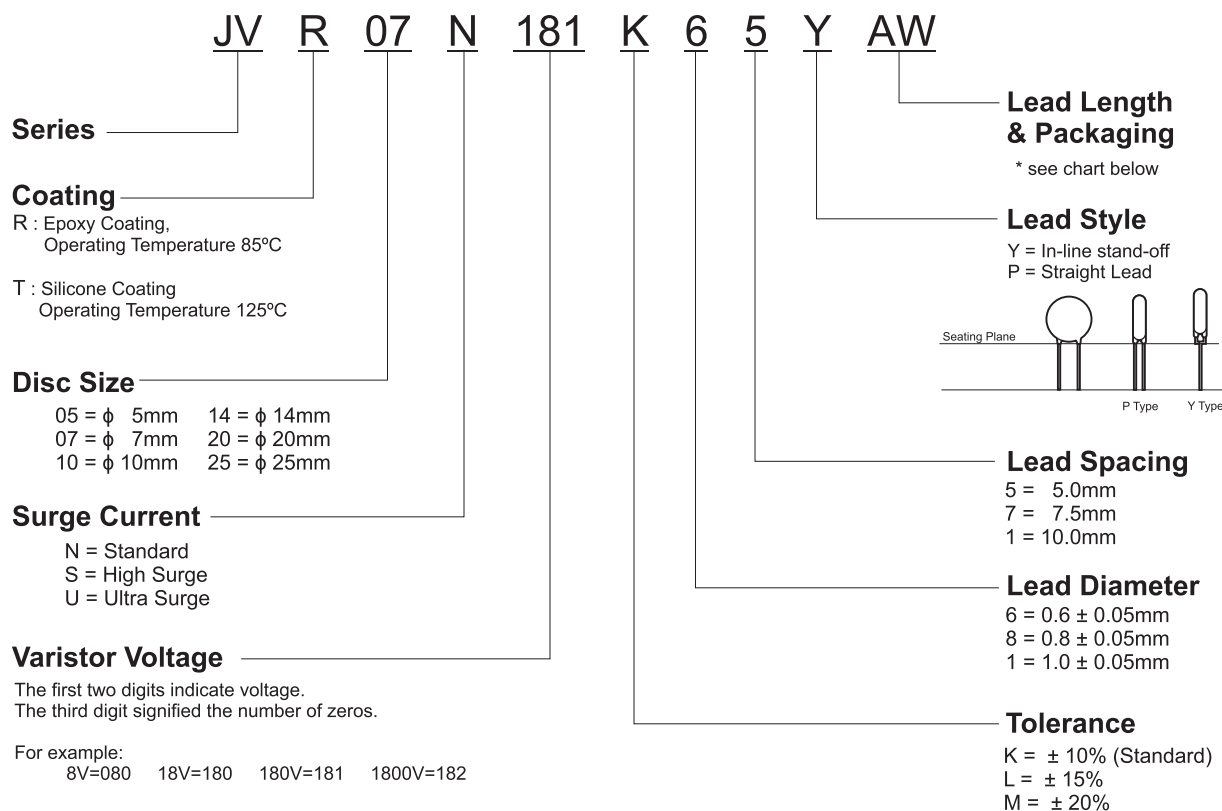


CURRENT - VOLTAGE CHARACTERISTICS



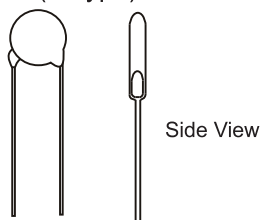
Operating & Storage Temperature Range : $-40^{\circ}C$ to $+85^{\circ}C$
Temperature Coefficient of Voltage : $0 \sim 0.05\% / ^{\circ}C$ max.

PART NUMBER EXAMPLE

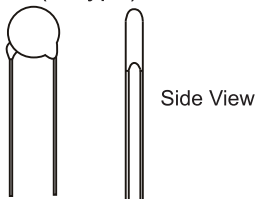


LEAD LENGTH & PACKAGING

Stand-off Formed
(Y Type)



Straight Lead
(P Type)

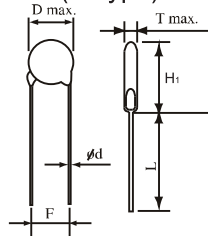


Lead Type	Code	Dimension		Package
Y Type Leads	50	L =	$5 \pm 1\text{mm}$	Bulk
	U4	L =	24mm min.	Bulk
	AW	H ₀ =	16mm	Ammo
	RW	H ₀ =	16mm	Reel
P Type Leads	50	L =	$5 \pm 1\text{mm}$	Bulk
	U5	L =	25mm min.	Bulk
	AY	H ₀ =	20mm	Ammo
	RY	H ₀ =	20mm	Reel

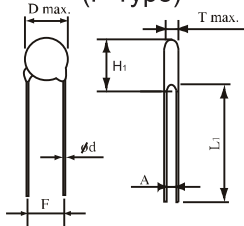
* H₀ see the drawing on page 5

LEAD STYLES & DIMENSIONS (mm)

Stand-off Formed
(Y Type)



Straight Lead
(P Type)



Diameter	5mm	7mm	10mm	14mm	20mm
D max	7.5	9.0	12.5	16.5	23.0
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	13.0	18/*19	22/*23	28/*29
L1 max.	25.0	25.0	25.0	25.0	25.0
L min.	24.0	24.0	24.0	24.0	24.0

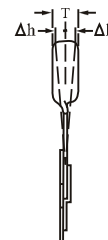
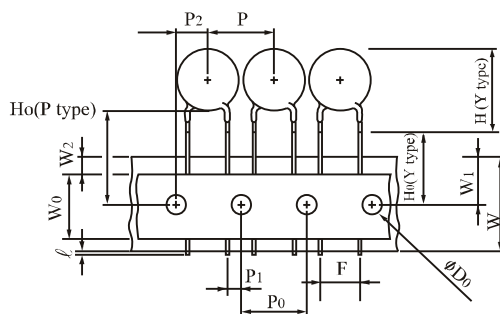
* Just for 182K

Table of T & H₁ max, A ± 0.8

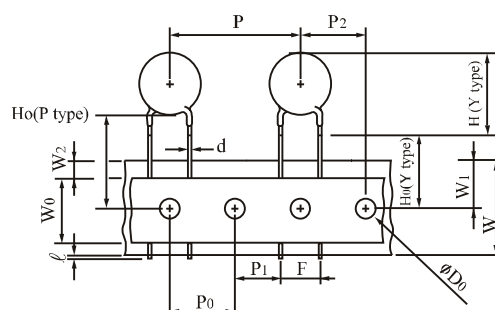
Diameter	5mm			7mm			10mm			14mm			20mm		
Value	T	A	H ₁	T	A	H ₁	T	A	H ₁	T	A	H ₁	T	A	H ₁
180M	4.5	0.8	10.5	4.5	0.8	12	4.9	0.8	15.5	5	0.9	19.5	—	—	—
220M/L	4.5	0.9	10.5	4.5	0.9	12	4.9	0.9	15.5	5	1	19.5	5.3	1	26.5
270M/K	4.7	0.9	10.5	4.7	0.9	12	5.1	0.9	15.5	5.2	1.1	19.5	5.4	1.1	26.5
330M/K	4.7	1	10.5	4.7	1	12	5.1	1	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	5.1	1.2	15.5	5.2	1.4	19.5	5.4	1.4	26.5
470L/K	5	1.2	10.5	5	1.2	12	5.5	1.2	15.5	5.6	1.4	19.5	5.6	1.4	26.5
560L/K	5	1.4	10.5	5	1.4	12	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	6	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	4.3	0.8	15.5	4.4	1	19.5	5	1.1	26.5
101K	3.9	0.8	10.5	3.9	0.8	12	4.4	0.8	15.5	4.5	1	19.5	5.1	1.2	26.5
121K	4.1	0.9	10.5	4.1	0.9	12	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	4.9	1.2	15.5	5.1	1.4	19.5	5.6	1.6	26.5
181K	4.1	1	10.5	4.1	1	12	4.5	1	15.5	4.7	1.2	19.5	5.2	1.4	26.5
201K	4.2	1	10.5	4.2	1	12	4.6	1	15.5	4.8	1.2	19.5	5.3	1.47	26.5
221K	4.3	1.1	10.5	4.3	1.1	12	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	4.8	1.3	15.5	5	1.5	19.5	5.5	1.7	26.5
271K	4.6	1.3	10.5	4.6	1.4	12	5	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	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	5.3	1.6	15.5	5.5	1.7	19.5	6	2.1	26.5
361K	5.1	1.8	10.5	5.1	1.9	12	5.5	1.9	15.5	5.7	2.1	19.5	6.2	2.3	26.5
391K	5.3	2	11	5.3	2	12.5	5.7	2.2	16	5.9	2.2	20	6.4	2.4	26.5
431K	6.1	2.1	11	6.1	2	12.5	6.5	2.5	16	6.7	2.5	20	7.2	2.7	26.5
471K	6.4	2.2	11	6.4	2.3	12.5	6.8	2.6	16	7	2.7	20	7.5	2.9	27
511K	6.6	2.5	11.5	6.6	2.5	13	7	3.1	16.5	7.2	3.1	20.5	7.7	3.3	27
561K	6.9	2.8	11.5	6.9	2.8	13	7.3	3.4	16.5	7.5	3.4	20.5	8	3.6	27
621K	7.2	3.1	11.5	7.2	3.1	13	7.6	4	16.5	7.8	3.8	20.5	8.3	4.1	27
681K	7.5	3.4	11.5	7.5	3.4	13	8	4.4	16.5	8.2	4.1	20.5	8.7	4.4	27
751K	7.9	3.7	11.5	7.9	3.7	13	8.4	4.4	16.5	8.6	4.3	20.5	9.1	4.5	27
781K	—	—	—	8.1	3.9	13	8.6	4.6	16.5	8.8	4.6	20.5	9.3	4.8	27
821K	—	—	—	8.3	4.1	13	8.8	4.6	16.5	9	4.6	20.5	9.5	4.8	27
911K	—	—	—	—	—	—	9.4	5.4	16.5	9.6	5.4	20.5	10.1	5.7	27
102K	—	—	—	—	—	—	9.9	5.4	16.5	10.1	5.6	20.5	10.7	5.8	27
112K	—	—	—	—	—	—	10.5	5.7	16.5	10.7	6.1	20.5	11.2	6.3	27
122K	—	—	—	—	—	—	10.9	6.3	17	10.9	6.7	21	11.3	6.9	27.5
142K	—	—	—	—	—	—	11.9	7.4	17.5	11.9	7.8	21.5	12.8	8	28
162K	—	—	—	—	—	—	13.1	8.6	18	13.1	9	22	13.7	9.2	28.5
182K	—	—	—	—	—	—	14.3	9.8	18.5	14.3	10.2	22.5	14.7	10.4	29

TAPING SPECIFICATIONS

1/2" pitch



1.0" pitch

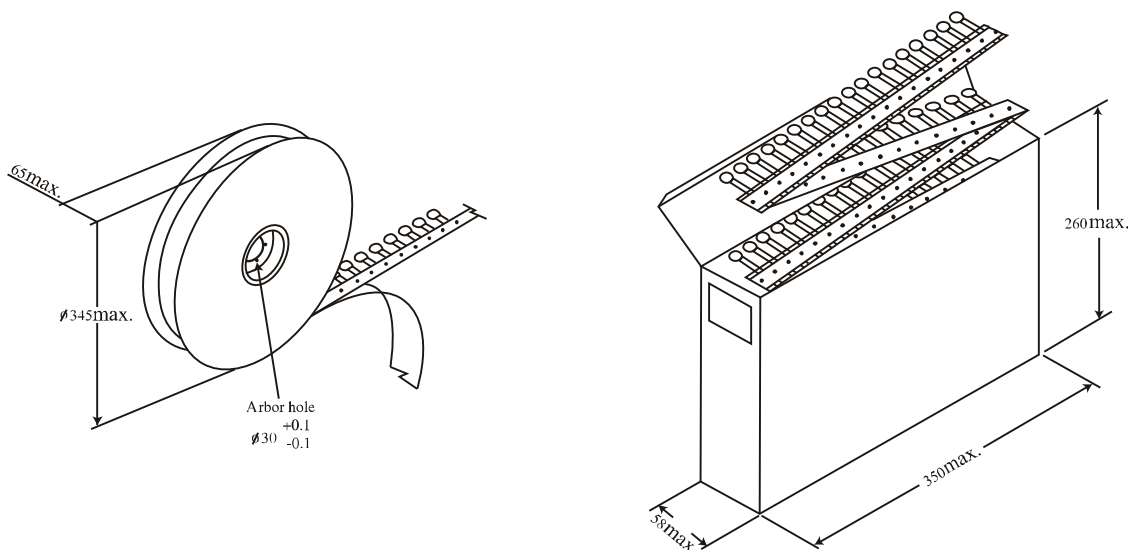


Symbols	Item	5 / 7 mm	10 / 14mm	20mm
	Cut out length	1.1 mm max.	1.1 mm max.	
H (Y Type)	Height of Top	See H Max. Table on page 4		
H ₀ (Y Type)	Height to seating plane	16.0 ± 0.5mm (*±1.0mm)	16.0 ± 0.5mm (*±1.0mm)	
H ₀ (P Type)	Height of component from hole center	16.0 ~ 21.0 mm	16.0 ~ 21.0 mm	
Δ h	Front to back deviation	0 ± 2.0 mm	0 ± 2.0 mm	
W	Carrier tape width	18.0 ^{+1.0} _{-0.5} mm	18.0 ^{+1.0} _{-0.5} mm	
W ₀	Hold down tape width	10.0mm	10.0mm	
W ₁	Sprocket hole position	9.0 ^{+0.75} _{-0.5} mm	9.0 ^{+0.75} _{-0.5} mm	
W ₂	Adhesive tape position	3.0 mm max.	3.0 mm max.	
F	Component head spacing	5.0 ^{+0.8} _{-0.2} mm	7.5 ^{+0.8} _{-0.2} mm	10 ^{+0.8} _{-0.2} mm
P	Pitch of component	12.7 ± 1.0 mm	25.4 ± 1.0 mm	
P ₀	Sprocket hole pitch	12.7 ± 0.3 mm	12.7 ± 0.3 mm	
P ₁	Lead length from hole center to lead	3.85 ± 0.7 mm	8.95 ± 0.7 mm	7.7 ± 0.7 mm
P ₂	Length from hole center to disk center	6.35 ± 1.3 mm	12.7 ± 1.3 mm	
D ₀	Sprocket hole diameter	4.0 ± 0.2 mm	4.0 ± 0.2 mm	
d	Lead wire diameter	0.6 ± 0.05 mm	0.8 ± 0.05 mm	1.0 ± 0.05 mm
T	Disk thickness	See Table of T Max. on page 4		
t1	Total thickness tape	0.7 ± 0.05 mm	0.7 ± 0.05 mm	
t2	Total thickness	1.6 mm max.	1.8 mm max.	

* for manual line

PACKAGING

in mm



Quantity per Packing Unit

in Pcs

Series Part No.	5mm			7mm			10mm			14mm			20mm		
	Bulk (box)	Reel	Ammo	Bulk (box)	Reel	Ammo	Bulk (box)	Reel	Ammo	Bulk (box)	Reel	Ammo	Bulk (box)	Reel	Ammo
180M ~ 470K	5000	1500	1500	5000	1500	1500	2500	1000	500	1500	750	500	750	500	500
560K ~ 680K	5000	1500	1000	5000	1500	1000	2500	1000	500	1500	750	500	750	500	500
820K ~ 391K	5000	1500	1500	5000	1500	1500	2500	1000	500	1500	750	500	750	500	500
431K ~ 471K	5000	1500	1000	5000	1000	1000	2000	750	500	1500	750	500	750	500	500
511K ~ 821K	4000	1000	1000	4000	1000	1000	1500	500	500	750	500	500	450	500	500
911K ~ 122K	---	---	---	---	---	---	1500	500	350	750	500	350	450	---	---
142K ~ 182K	---	---	---	---	---	---	750	---	---	450	---	---	300	---	---

Packaging	Bulk (box)	Reel	Reel (14mm, 20mm)	Ammo (5mm, 7mm)	Ammo (10mm, 14mm)	Ammo (20mm)
Box size (mm)	290*155*110	350*350*105	346*346*72	335*245*43	347*246*50	348*255*60
Carton size (mm)	328*310*250	370*370*590	370*370*468	515*354*258	515*364*246	535*365*275
One carton with	4 boxes	5 boxes (10 reels)	6 boxes (6 reels)	10 boxes	8 boxes	8 boxes