

General military

(General Army)

multilayer chip varistor



1. Features
2. Rectangular, serialized in size and specifications, suitable for overvoltage protection of electronic circuits in various military electronic equipment;
3. Fast response speed ($<1\text{ns}$)
4. Low leakage current ($<30\mu\text{A}$), low limit voltage;
5. National military standard production line production;
6. Working temperature range: $-55^{\circ}\text{C}\sim 125^{\circ}\text{C}$.

Executive standard

Detailed specification: Q/CT 06B-2018 《Detailed specification of J series ordinary military multilayer chip varistor》

1. Product model specifications

J-	FNV-	201	G	5R6	N	0603	T
Grade	Series	Nominal Capacity	Product type	DC working Voltage (unit: V)	Type of coating	Size code	Packaging
Military	FNV: Chip varistor	200=20 pF 201=200 pF X= No requirement	G: Overvoltage protection type H: High-energy type E: Anti-static type	5R6=5.6 V 140=14V	N: Ag/Ni/Sn S: silver	0603 ~ 3220	T: Tape and reel B: Bulk

General military (General Army) multilayer chip varistor.

Product introduction

General specification:

GJB 1782A-2015 "General Specification for Varistors"

Implement detailed corporate specifications:

Q/CT 06B-2018 "Detailed Specification of J Series Ordinary Military Multilayer Chip Varistors" Test method:

In accordance with GJB 360B-2009 "Test Methods for Electronic and Electrical Components"

Screening procedure:

Preliminary inspection of appearance: according to detailed specifications

Preliminary test at room temperature: according to detailed specifications

Power aging: At 125°C, the maximum continuous working DC voltage is applied and maintained for 48h

Temperature shock: at -55°C ~ 125°C, keep for 30 minutes, 5 cycles

ESD static test: air discharge 8KV contact discharge: 6KV (only applicable to anti-static products)

Retest at room temperature: the same as the initial test requirements at room temperature

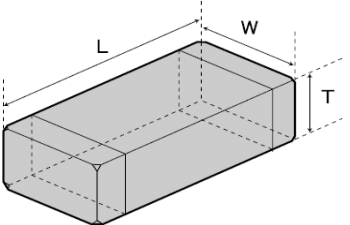
Appearance re-inspection: the same appearance as the initial inspection requirements

Eligibility criteria: The rejection rate is $\leq 8\%$, which is used as the criterion for the approval of the batch

Provide reports: batch by batch "Inspection Report", "Certificate of Conformity"

Quality data: keep for 10 years

6.1 Dimensions parameters

	Size code	Size (mm)		
		L	W	T
	0603	1.52 ± 0.25	0.76 ± 0.25	≤ 1.01
	0805	2.00 ± 0.20	1.25 ± 0.20	≤ 1.40
	1206	3.20 ± 0.30	1.60 ± 0.30	≤ 1.90
	1210	3.20 ± 0.30	2.50 ± 0.30	≤ 2.50
	1812	4.50 ± 0.40	3.20 ± 0.30	≤ 3.40
	2220	5.70 ± 0.50	5.08 ± 0.50	≤ 3.60
	3220	8.20 ± 0.50	5.08 ± 0.50	≤ 3.60

6.2 Product type code

Product type	Overvoltage protection type	High-energy type	Anti-static type
Code	G	H	E

6.3 Nominal DC operating voltage

The nominal DC operating voltage is expressed in volts (V). It is distinguished by three digits. The first and second digits represent the effective number, and the last digit is set as the number of “0” after it; when the voltage is less than 10V, R represents the decimal point. For example: 380=38V 7R5=7.5V

6.4 Nominal capacitance

The nominal capacitance is expressed in pF, which is distinguished by three digits. The first and second digits represent significant numbers, and the last digit is set as the number of “0” after it. For example: 431=430pF

6.5 Specification sheet

Specification model	Operating voltage		Operating voltage	Limit voltage		Peak current	Energy tolerance
	V _{AC} (V)	V _{DC} (V)	V _{1mA} (V)	V _C (V) (MAX)		I _p (A) (MAX)	ET(J) (MAX)
				8/20μs			
				(A)	(V)	8/20μs	10/1000μs
J-FNV0603G3R3NX	2.3	3.3	5±20%	1	14	20	0.1
J-FNV0603G5R6NX	4	5.6	8±15%	1	21	20	0.1
J-FNV0603G8RONX	5	8	11±15%	1	24	20	0.1
J-FNV0603G9R0NX	6	9	12±15%	1	29	20	0.1
J-FNV0603G110NX	8	11	15±10%	1	36	30	0.1
J-FNV0603G140NX	10	14	18±10%	1	43	30	0.1

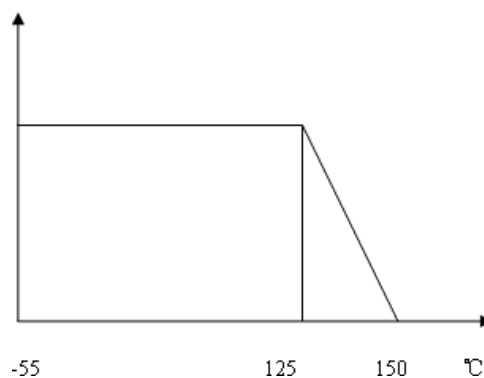
J-FNV0603G160NX	11	16	$22 \pm 10\%$	1	53	30	0.1
J-FNV0603G180NX	13	18	$24 \pm 10\%$	1	58	30	0.1
J-FNV0603G200NX	14	20	$27 \pm 10\%$	1	65	30	0.1
J-FNV0603G240NX	17	24	$33 \pm 10\%$	1	79	30	0.1
J-FNV0603G280NX	20	28	$39 \pm 10\%$	1	94	30	0.1
J-FNV0603G330NX	23	33	$45 \pm 10\%$	1	105	30	0.1
J-FNV0805G5R6NX	4	5.6	$8 \pm 15\%$	2	21	40	0.2
J-FNV0805G8R0NX	5	8	$11 \pm 15\%$	2	24	40	0.2
J-FNV0805G9R0NX	6	9	$12 \pm 15\%$	2	29	40	0.2
J-FNV0805G110NX	8	11	$15 \pm 10\%$	2	36	40	0.2
J-FNV0805G140NX	10	14	$18 \pm 10\%$	2	44	40	0.2
J-FNV0805G160NX	11	16	$22 \pm 10\%$	2	53	40	0.2
J-FNV0805G180NX	13	18	$24 \pm 10\%$	2	58	40	0.2
J-FNV0805G200NX	14	20	$27 \pm 10\%$	2	65	40	0.2
J-FNV0805G240NX	17	24	$33 \pm 10\%$	2	79	40	0.2
J-FNV0805G300NX	20	30	$39 \pm 10\%$	2	94	40	0.2
J-FNV0805G350NX	25	35	$47 \pm 10\%$	2	113	40	0.2
J-FNV1206G5R6NX	4	5.6	$8 \pm 15\%$	5	21	100	0.5
J-FNV1206G9R0NX	6	9	$12 \pm 10\%$	5	29	100	0.5
J-FNV1206G110NX	8	11	$15 \pm 10\%$	5	36	100	0.5
J-FNV1206G140NX	10	14	$18 \pm 10\%$	5	44	100	0.5
J-FNV1206G160NX	11	16	$22 \pm 10\%$	5	53	100	0.5
J-FNV1206G180NX	13	18	$24 \pm 10\%$	5	58	100	0.5
J-FNV1206G200NX	14	20	$27 \pm 10\%$	5	65	100	0.5
J-FNV1206G240NX	17	24	$33 \pm 10\%$	5	79	100	0.5
J-FNV1206G280NX	20	28	$39 \pm 10\%$	5	94	100	0.5
J-FNV1206G300NX	21	30	$40 \pm 10\%$	5	97	100	0.5
J-FNV1206G350NX	25	35	$47 \pm 10\%$	5	113	100	0.5
J-FNV1206G380NX	27	38	$52 \pm 10\%$	5	125	100	0.5
J-FNV1206G420NX	30	42	$56 \pm 10\%$	5	135	100	0.5
J-FNV1206G480NX	34	48	$66 \pm 10\%$	5	158	100	0.5
J-FNV1206G500NX	35	50	$68 \pm 10\%$	5	165	100	0.5
J-FNV1206G560NX	40	56	$75 \pm 10\%$	5	181	100	0.5
J-FNV1206G600NX	42	60	$82 \pm 10\%$	5	198	100	0.5
J-FNV1206G680NX	48	68	$90 \pm 10\%$	5	218	100	0.4
J-FNV1206G750NX	53	75	$100 \pm 10\%$	5	242	100	0.4
J-FNV1210G5R6NX	4	5.6	$8 \pm 15\%$	8	21	200	0.8
J-FNV1210G9R0NX	6	9	$12 \pm 10\%$	8	29	200	0.8
J-FNV1210G110NX	8	11	$15 \pm 10\%$	8	36	200	0.8

J-FNV1210G140NX	10	14	$18 \pm 10\%$	8	44	200	0.8
J-FNV1210G160NX	11	16	$22 \pm 10\%$	8	53	200	0.8
J-FNV1210G180NX	13	18	$24 \pm 10\%$	8	58	200	0.8
J-FNV1210G200NX	14	20	$27 \pm 10\%$	8	65	200	0.8
J-FNV1210G240NX	17	24	$33 \pm 10\%$	8	80	200	0.8
J-FNV1210G280NX	20	28	$39 \pm 10\%$	8	94	200	0.8
J-FNV1210G300NX	21	30	$40 \pm 10\%$	8	97	200	0.8
J-FNV1210G350NX	25	35	$47 \pm 10\%$	8	113	200	0.8
J-FNV1210G380NX	27	38	$52 \pm 10\%$	8	125	200	0.8
J-FNV1210G420NX	30	42	$56 \pm 10\%$	8	135	200	0.8
J-FNV1210G480NX	34	48	$66 \pm 10\%$	8	158	200	0.8
J-FNV1210G500NX	35	50	$68 \pm 10\%$	8	165	200	0.8
J-FNV1210G560NX	40	56	$75 \pm 10\%$	8	181	200	0.8
J-FNV1210G600NX	42	60	$82 \pm 10\%$	8	198	200	0.8
J-FNV1210G750NX	53	75	$100 \pm 10\%$	8	242	200	0.8
J-FNV1210G850NX	60	85	$120 \pm 10\%$	8	290	200	0.8
J-FNV1812H5R6NX	4	5.6	$8 \pm 15\%$	10	24	400	0.8
J-FNV1812H180NX	13	18	$24 \pm 10\%$	10	58	600	1.5
J-FNV1812H200NX	14	20	$27 \pm 10\%$	10	65	600	1.5
J-FNV1812H240NX	17	24	$33 \pm 10\%$	10	79	600	1.5
J-FNV1812H300NX	21	30	$40 \pm 10\%$	10	94	600	1.5
J-FNV1812H350NX	25	35	$47 \pm 10\%$	10	113	600	1.5
J-FNV1812H380NX	27	38	$52 \pm 10\%$	10	125	600	1.5
J-FNV1812H420NX	30	42	$56 \pm 10\%$	10	135	600	1.5
J-FNV1812H480NX	34	48	$66 \pm 10\%$	10	158	600	1.5
J-FNV1812H500NX	35	50	$68 \pm 10\%$	10	165	600	1.5
J-FNV1812H560NX	40	56	$75 \pm 10\%$	10	181	600	1.5
J-FNV1812H600NX	42	60	$82 \pm 10\%$	10	198	600	1.5
J-FNV1812H680NX	48	68	$90 \pm 10\%$	10	218	600	1.5
J-FNV1812H750NX	53	75	$100 \pm 10\%$	10	242	600	1.5
J-FNV2220H180NX	13	18	$24 \pm 10\%$	10	58	1200	2.5
J-FNV2220H200NX	14	20	$27 \pm 10\%$	10	65	1200	2.5
J-FNV2220H240NX	17	24	$33 \pm 10\%$	10	80	1200	2.5
J-FNV2220H280NX	20	28	$39 \pm 10\%$	10	94	1200	2.5
J-FNV2220H300NX	21	30	$40 \pm 10\%$	10	97	1200	2.5
J-FNV2220H350NX	25	35	$47 \pm 10\%$	10	113	1200	2.5
J-FNV2220H380NX	27	38	$52 \pm 10\%$	10	125	1200	2.5
J-FNV2220H420NX	30	42	$56 \pm 10\%$	10	135	1200	2.5

J-FNV2220H480NX	34	48	$66 \pm 10\%$	10	158	1200	2.5
J-FNV2220H500NX	35	50	$68 \pm 10\%$	10	165	1200	2.5
J-FNV2220H560NX	40	56	$75 \pm 10\%$	10	181	1200	2.5
J-FNV2220H600NX	42	60	$82 \pm 10\%$	10	198	1200	2.5
J-FNV2220H680NX	48	68	$90 \pm 10\%$	10	218	1200	2.5
J-FNV2220H750NX	53	75	$100 \pm 10\%$	10	242	1200	2.5
J-FNV3220H180NX	13	18	$24 \pm 10\%$	10	58	1500	3.5
J-FNV3220H200NX	14	20	$27 \pm 10\%$	10	65	1500	3.5
J-FNV3220H240NX	17	24	$33 \pm 10\%$	10	80	1500	3.5
J-FNV3220H280NX	20	28	$39 \pm 10\%$	10	94	1500	3.5
J-FNV3220H300NX	21	30	$40 \pm 10\%$	10	97	1500	3.5
J-FNV3220H350NX	25	35	$47 \pm 10\%$	10	113	1500	3.5
J-FNV3220H380NX	25	35	$52 \pm 10\%$	10	125	1500	3.5
J-FNV3220H420NX	27	38	$56 \pm 10\%$	10	135	1500	3.5
J-FNV3220H500NX	35	50	$68 \pm 10\%$	10	165	1500	3.5
J-FNV3220H560NX	40	56	$75 \pm 10\%$	10	181	1500	3.5
J-FNV3220H600NX	42	60	$82 \pm 10\%$	10	198	1500	3.5
J-FNV3220H680NX	48	68	$90 \pm 10\%$	10	218	1200	3.5
J-FNV3220H750NX	53	75	$100 \pm 10\%$	10	242	1200	3.5
J-FNV0603E180N150	13.0	18.0	27.0~45.0	1	99.0	--	0.01
J-FNV0603E240N2R5	18.0	24.0	100.0~185.0	1	400	--	0.01

6.6 Characteristic

6.7 The relationship between the rated peak current, energy and ambient temperature of the multilayer chip varistor voltage



Note: When customers need plug-in varistors, corresponding products can be provided.