QV1206P471KT101 SMD Series Surface Mount Piezoresistive Device Anti-Lightning Surge

Our Product Introduction

Basic Information

- Place of Origin: China
- Brand Name: Lin Kun
- Certification: UL,VDE,CSA
- Model Number: QV1206P471KT101
- Minimum Order Quantity: 10000pcs
- Price: Negotiable
- Packaging Details: 1000pcs/plate
- Delivery Time: 5-7 Days
- Payment Terms: T/T,Paypal, Western Union
- Supply Ability: 1000000PCS/Month

Product Specification

- Part Number: 1206 Series
- Inch (mm) External Dimension L×W: 1206 0.12×0.06 (3.2×1.6)
- Max. Working Voltage: Dc : 385V Ac : 300V
- Varistor Voltage @1mA DC: 470±10%
- Peak Current (8/20μs): IP : 100 (A)
- Max. Clamping Voltage (8/20μs): Vc : 775 (V)
- Typical Capacitance @1MHz: Cp : 150- 5(J)
- Operation Ambient Temperature: -40 +125℃
- Highlight: **SMD Series Surface Mount Piezoresistive Device**

More Images

Our Product Introduction

for more products please visit us on lk-thermistor.com

Product Description

1 Shape & Dimensions and Parts &Components

* Shape & Dimensions: See Fig.1 and Table 1.
* Parts &Components: See Fig.2 and Table 2

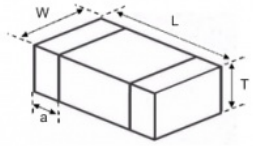


Fig.1

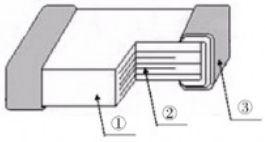


Fig.2

Table

Type	L (mm)	W (mm)	T (mm)	a (mm)
0604	1.65 +0.15/-0.15	1.05 +0.15/-0.15	1.20 Max.	0.25±0.15
0806	2.2 +0.2/-0.2	1.8 +0.2/-0.2	2.0 Max.	0.50±0.30
1206	3.2 +0.6/-0.4	1.8 +0.2/-0.2	2.0 Max.	0.50±0.30
1210	3.2 +0.6/-0.4	2.5 +0.4/-0.2	2.6 Max.	0.50±0.30
1812	4.5 +0.6/-0.2	3.2 +0.5/-0.2	3.5 Max.	0.60±0.30
2220	6.0 +0.7/-0.3	5.3 +0.5/-0.3	3.6 Max.	0.60±0.30

Table 2

Part	①	②	③
Component	ZnO Semiconductor Ceramics for Chip Varistor	Internal Electrode (Ag or Ag-Pd)	Terminal Electrode (Ag/Ni/Sn three layers)

2 Product Identification(Part Number)

LK	0806	P	151	K	T	201
①	②	③	④	⑤	⑥	⑦

① Type	
LK	Chip Varistor

② inch (mm) External Dimension L×W	
1206	0.12×0.06 (3.2×1.6)
1812	0.18×0.12 (4.5×3.2)

③ Application Code	
P	Power-lines Protection

④ Varistor Voltage @ 1mA	
241	240V

⑤ Tolerance of Varistor Voltage	
K	±10%

⑥ Packaging	
T	Tape
B	Bulk

⑦ Max. Surge Current @8/20μ s	
RA	2.5KV Max. Ring Wave Voltage
201	200A

3 Electrical Characteristics

I. LK0604

Part No.	Max. Working Voltage		Varistor Voltage @1mA DC	Max. Clamping Voltage (8/20μ s)		Max. Ring Wave Voltage (@30Ω)	Operation Ambient Temperature
	V_{AC}(V)	V_{DC}(V)	V_{1mA}(V)	Vc(V)	Ic(A)	$V_{Ring\ wave}$	
LK0604P271KTRA	175	225	270±10%	450	1	2.5KV	-40～+125℃

II. LK0806~LK2220

Part No.	Max. Working Voltage		Varistor Voltage @1mA DC	Max. Clamping Voltage (8/20μ s)		Peak Current (8/20μ s)	Operation Ambient Temperature
	V_{AC}(V)	V_{DC}(V)	V_{1mA}(V)	Vc(V)	Ic(A)	Ip(A)	
LK0806P241KT201	150	200	240±10%	395	1	200	-40～+125℃
LK0806P271KT201	175	225	270±10%	450	1	200	-40～+125℃
LK0806P431KT101	275	350	430±10%	705	1	100	-40～+125℃
LK0806P471KT101	300	385	470±10%	775	1	100	-40～+125℃
LK1206P271KT301	175	225	270±10%	450	1	300	-40～+125℃
LK1206P431KT151	275	350	430±10%	705	1	150	-40～+125℃
LK1206P471KT101	300	385	470±10%	775	1	100	-40～+125℃
LK1206P511KT101	320	410	510±10%	850	1	100	-40～+125℃
LK1210P471KT401	300	385	470±10%	775	2.5	400	-40～+125℃
LK1210P511KT301	320	410	510±10%	850	2.5	300	-40～+125℃
LK1812P471KT601	300	385	470±10%	775	5	600	-40～+125℃
LK2220P471KT801	300	385	470±10%	775	10	800	-40～+125℃

4 Test and Measurement ProceduresTest Conditions

Unless otherwise specified, the standard atmospheric conditions for measurement/test as:

a. Ambient Temperature: 20±15℃

b. Relative Humidity: 65±20%

c. Air Pressure: 86kPa to 106kPa

If any doubt on the results, measurements/tests should be made within the following limits:

a. Ambient Temperature: 25±2℃

b. Relative Humidity: 65±5%

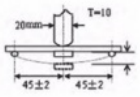
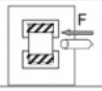
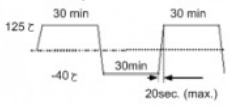
c. Air Pressure: 86kPa to 106kPa

* Inspection Equipment

Visual Examination: 20×magnifier

Varistor Voltage test: Varistor tester

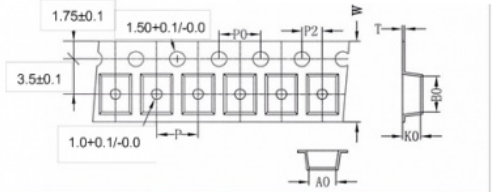
5 Reliability Test

No	Items	Test conditions / Methods	Requirements
1	Bending Resistance	Warp: 2mm Speed<0.5mm/s Duration: 10s 	① No visible mechanical damage. ② |△V1mA /V1mA| 5%.
2	Terminal Strength	Speed ‹ 0.5mm/s Apply force: 10N Duration: 10±1s 	No removal or split of the termination
3	Solderability	Solder temperature: 240±5℃; Dipping Duration: 3±0.3s;	① No visible mechanical damage. ② Wetting shall exceed 90% coverage.
4	Resistance to Soldering Heat	Solder temperature: 260±5℃; Dipping Duration: 5±1s;	① No visible mechanical damage. ② |△V1mA /V1mA| 10%.
5	Thermal Shock	High and low temperatures Transform for 100 Cycles. 	① No visible mechanical damage. ② |△V1mA /V1mA| 10%.

6	High Temp. Storage	Temperature: 125±2 ℃ Duration: 1000±24 h.	① No visible mechanical damage. ② |△V1mA /V1mA| 10%.
7	High Temp. Load	Temperature: 125±2 ℃ Loading Voltage: V AC. Duration: 1000±24 h.	
8	Damp Heat Load	Temperature: 40±2 ℃ Humidity: 90% ~ 95% RH. Loading Voltage: V AC. Duration: 500±12 h.	
9	Maximum Surge Current	Pulse waveform: 8/20 us Number of hit: each 1 time of +/- polarity Applied current: maximum surge current (Ip)	① No visible mechanical damage. ② |△V1mA /V1mA| 10%.

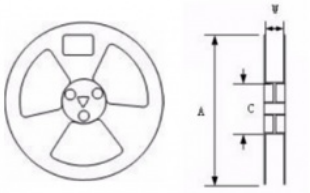
6 Taping

(1) Carrier tape dimensions. (Unit: mm)



Type	A0 (±0.2)	B0 (±0.2)	K0 (±0.2)	T Max.	W (±0.3)	P0 (±0.2)	P (±0.2)	P2 (±0.2)
0604	1.3	2.1	1.3	0.30	8.0	4.0	4.0	2.0
0806	2.1	2.5	2.1	0.30	8.0	4.0	4.0	2.0
1206	2.1	3.8	2.1	0.30	8.0	4.0	4.0	2.0
1210	3.1	3.8	2.8	0.30	8.0	4.0	4.0	2.0
1812	3.8	5.2	3.6	0.30	12.0	4.0	8.0	2.0
2220	6.9	6.8	3.8	0.30	12.0	4.0	8.0	2.0

〈2〉 Taping reel dimensions



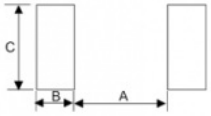
Type	Spec	Dimensions(mm)		
		A	W	C
0604	7"	178±2	8.4+2.0/-0.0	58±2
0806	7"	178±2	8.4+2.0/-0.0	58±2
1206	7"	178±2	8.4+2.0/-0.0	58±2
1210	7"	178±2	8.4+2.0/-0.0	58±2
1812	7"	178±2	12.4+2.0/-0.0	58±2
2220	7"	178±2	12.4+2.0/-0.0	58±2

〈3〉 Packaging quantity

Type	Tape	Quantity(pcs/reel)
0604	Embossed Tape	3K
0806		2K
1206		2K
1210		1K
1812		500
2220		500

7 Soldering Recommendation

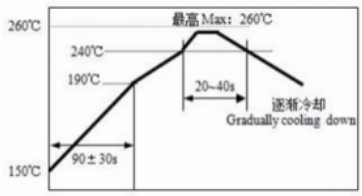
〈1〉 Recommended Land pattern



Type	A 〈mm〉	B 〈mm〉	C 〈mm〉
0604	1.0~1.3	0.9~1.2	1.1~1.4
0806	1.2~1.6	0.8~1.2	1.6~2.2
1206	1.8~2.5	1.2~1.8	1.5~2.0
1210	1.8~2.5	1.3~2.0	2.2~3.0
1812	2.5~3.3	1.5~2.2	3.0~3.8
2220	4.1~4.9	1.5~2.2	5.7~6.4

(2) Recommended Soldering Profile

- Pb Free Solder Paste: Sn/Ag/Cu (96.5/3.0/0.5).
- Max time at max temp: 10sec.
- Allowed Reflow time: 2x Max



8 Notes & Warnings

- Storage

1.Storage temperature in original packaging: -10~+40℃.
2. Relative Humidity: ≤70%RH.
3. Keep away from corrosive atmosphere and sunlight.
4. Period of Storage: 12 Months.

Product Description:

SMD Varistor Device is a kind of Surface Mounted Device Varistor specially designed for ESD protection. It provides excellent protection against lightning surges, transients, and other high-energy disturbances. It features tolerance of Varistor Voltage of ±10% and ±15%, external dimension of 1206 0.12×0.06 (3.2×1.6) and 1812 0.18×0.12 (4.5×3.2), max. working voltage of DV 5.5V-85V and AC 4V-60V, and peak current of 20- 1200 (A) according to the part number of QV0402 2220H Series. It is perfectly suited for a variety of applications including consumer electronics, automotive electronics, medical equipment, industrial electronics, etc.

Features:

Product Name: **SMD Chip Varistor**
Part Number: **QV0402 2220H Series**
Size: **0402- 2220**
Max. Working Voltage: **DV : 5.5V-85V AC : 4V-60V**
Peak Current (8/20μs): **IP : 20- 1200 (A)**
Element: **SMD Varistor Element**
Device: **Surface Mounted Varistor Device**
Type: **Surface Mounted Device Varistor**

Technical Parameters:

Parameter	Value
Product Name	SMD Chip Varistor
Part Number	QV0402~2220H Series

Max. Working Voltage (DC/AC)	DV: 5.5V~85V AC: 4V~60V
Varistor Voltage @1mA DC	12V~102V
Tolerance of Varistor Voltage	±10% ±15%
Typical Capacitance @1MHz	Cp: 150~5J
External Dimension (inch/mm)	1206: 0.12″×0.06″ (3.2×1.6) 1812: 0.18″×0.12″ (4.5×3.2)
Peak Current (8/20μs)	IP: 20~1200A
Size	0402~2220
Max. Clamping Voltage (8/20μs)	Vc: 24~175V IP: 20~5A

Applications:

Lin Kun SMD Varistor Element - Surface Mount Varistor Device

Lin Kun SMD Varistor Element is a surface mount varistor device for protecting against transient voltage surges. It is UL,VDE,CSA certified and comes in a variety of sizes ranging from 0402 to 2220. With a minimum order quantity of 4000/3000/2000pcs/plate and price that is negotiable, the SMD Varistor Element is available in a wide range of varistor voltage tolerances (±10% ±15%) and varistor capacitance (Cp : 150- 5(J)). It has a maximum clamping voltage (8/20μs) of Vc : 24-175 (V) IP : 20-5(A).
Lin Kun SMD Varistor Element is a reliable and cost-effective solution for protecting electronic components from voltage surges. With a production capacity of 1000000PCS/Month, it is a great choice for your surface mount varistor needs. The delivery time for the product is 5-7 days and payment can be made via T/T,Paypal, Western Union.

Customization:

SMD Varistor

Brand Name: Lin Kun
Model Number: SMD Surface Mount Varistors
Place of Origin: China
Certification: UL,VDE,CSA
Minimum Order Quantity: 4000/3000/2000pcs/plate
Price: Negotiable
Packaging Details: 4000/3000/2000pcs/plate
Delivery Time: 5-7 Days
Payment Terms: T/T,Paypal, Western Union
Supply Ability: 1000000PCS/Month
Product Name: SMD Chip Varistor
Typical Capacitance @1MHz: Cp : 150- 5(J)
Part Number: QV0402 2220H Series
inch (mm) External Dimension L×W: 1206 0.12×0.06 (3.2×1.6) 1812 0.18×0.12 (4.5×3.2)
Max. Working Voltage: DV : 5.5V-85V AC : 4V-60V
Surface Mount Varistor, Surface Mount Device Varistor, Surface Mounted Varistor, SMD Varistor

Support and Services:

SMD Varistor Technical Support and Service

We provide comprehensive technical support and service for all of our SMD Varistor products. Our experienced and knowledgeable technical support team is available to answer any questions you may have. We offer a variety of services, including:
Product Selection Assistance
Installation and Troubleshooting Support
Online Diagnostics and Repair Services
Software Updates and Upgrades
Product Training and Education
Our team of experts is dedicated to providing the highest level of customer service and satisfaction. If you have any questions or need any assistance, please don't hesitate to contact us.

Packing and Shipping:

SMD Varistor Packaging and Shipping:
SMD Varistors are safely packaged in an ESD-safe vacuum bag to ensure the product is free from dust and dirt. The vacuum bag is then sealed in an anti-static plastic container to ensure the product stays safe during shipping. Finally, the container is placed into a sealed cardboard box and shipped to the customer.

FAQ:

Q: What is SMD Varistor?
A: SMD Varistor is a type of voltage dependent resistor (VDR) with a nonlinear characteristic. It is commonly used to protect circuits from overvoltage transients.
Q: What is the Brand Name of SMD Varistor?
A: The Brand Name of SMD Varistor is Lin Kun.
Q: What is the Model Number of SMD Varistor?
A: The Model Number of SMD Varistor is SMD Surface Mount Varistors.
Q: Where is SMD Varistor from?
A: SMD Varistor is from China.
Q: What Certifications does SMD Varistor have?
A: SMD Varistor has UL, VDE, and CSA Certifications.

Dongguan Linkun Electronic Technology Co., Ltd.

13423305709 huangju@lk-ptc.com lk-thermistor.com

Room 101, No. 21, Huayuanzai Road, Chongmei, Chashan Town, Dongguan City, Guangdong Province