

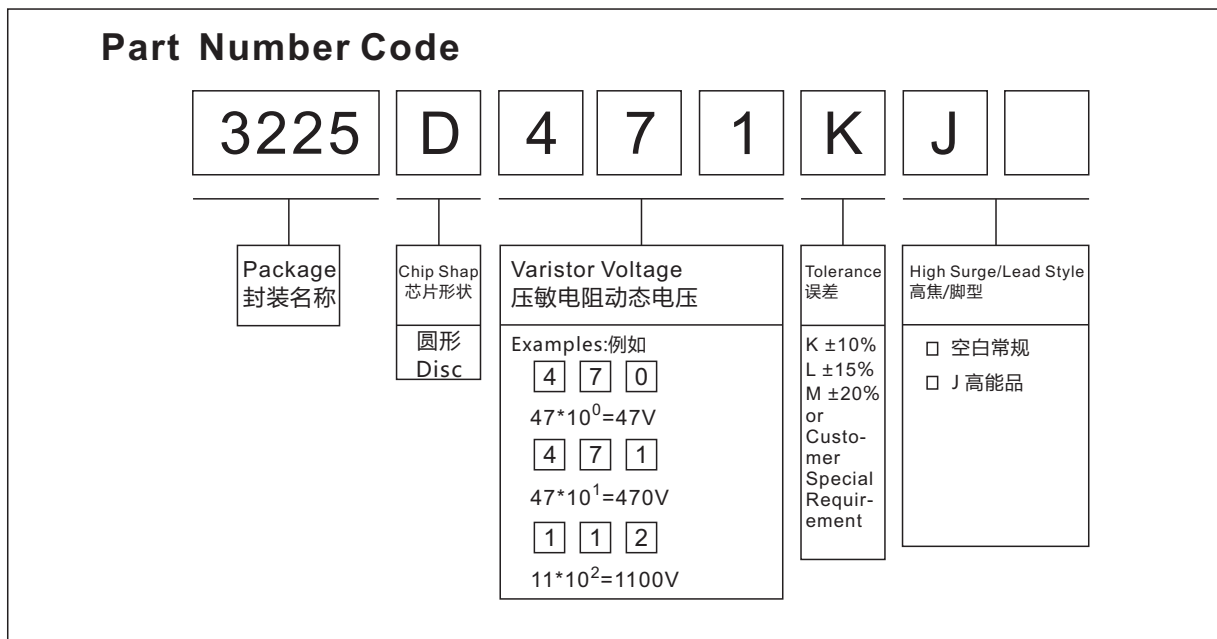


## Applications

- Surge protection in consumer electronics.
- Surge protection in industrial electronics.
- Surge protection in electronics home
- Appliances, gas and petroleum appliances.
- Relay and electromagnetic valve surge absorption

## Features

- Wide operating voltage (V1mA) range from 18V to 750V
- Fast responding to transient over-voltage
- Large absorbing transient energy capability
- Low clamping ratio and no following-on current





### Mechanical Requirements

Solderability	Min. 95% of The Terminal Should Be Covered With Solder Uniformly	Solder Temp: 265±5°C Immersed Time: 2±0.5Sec.
Resistance of soldering heat	$\Delta V1mA/V1mA \leq \pm 5\%$	Solder Temp: 260±5°C
		Immersed Time: 10±1Sec.

### Environmental Requirements

High Temperature Storage	$\Delta V1mA/V1mA \leq \pm 5\%$	Ambient Temp: 125±2°C Duration: 1000h
Low Temperature Storage	$\Delta V1mA/V1mA \leq \pm 5\%$	Ambient Temp: -40±2°C Duration: 1000h
High Humidity Storage/Damp Heat	$\Delta V1mA/V1mA \leq \pm 5\%$	Ambient Temp: 40±2°C 90-95% R.H. Duration: 1000h
Temperature Cycle	$\Delta V1mA/V1mA \leq \pm 5\%$	Step   Temperature   Period
		1   -50°C   30min
		2   Room Temp   15min
		3   150°C   30min
4   Room Temp   15min		
High Temperature Load	$\Delta V1mA/V1mA \leq \pm 10\%$	Ambient temp: 85±2°C Duration: 1000h Load: Max. Allowable Voltage
Damp Heat Load/ Humidity Load	$\Delta V1mA/V1mA \leq \pm 10\%$	1. Temperature : 40±2°C 2. Humidity : 90~95% RH 3. Rated working voltage applied 4. Time : 500±2 hours 5. Test after placing in ambient temperature for 24 hours.
Operating Temperature Range	-40°C ~ +125°C	-40°C ~ +125°C
Storage Temperature Range	-55°C ~ +125°C	-55°C ~ +125°C



Characteristics at Ta = 25°C

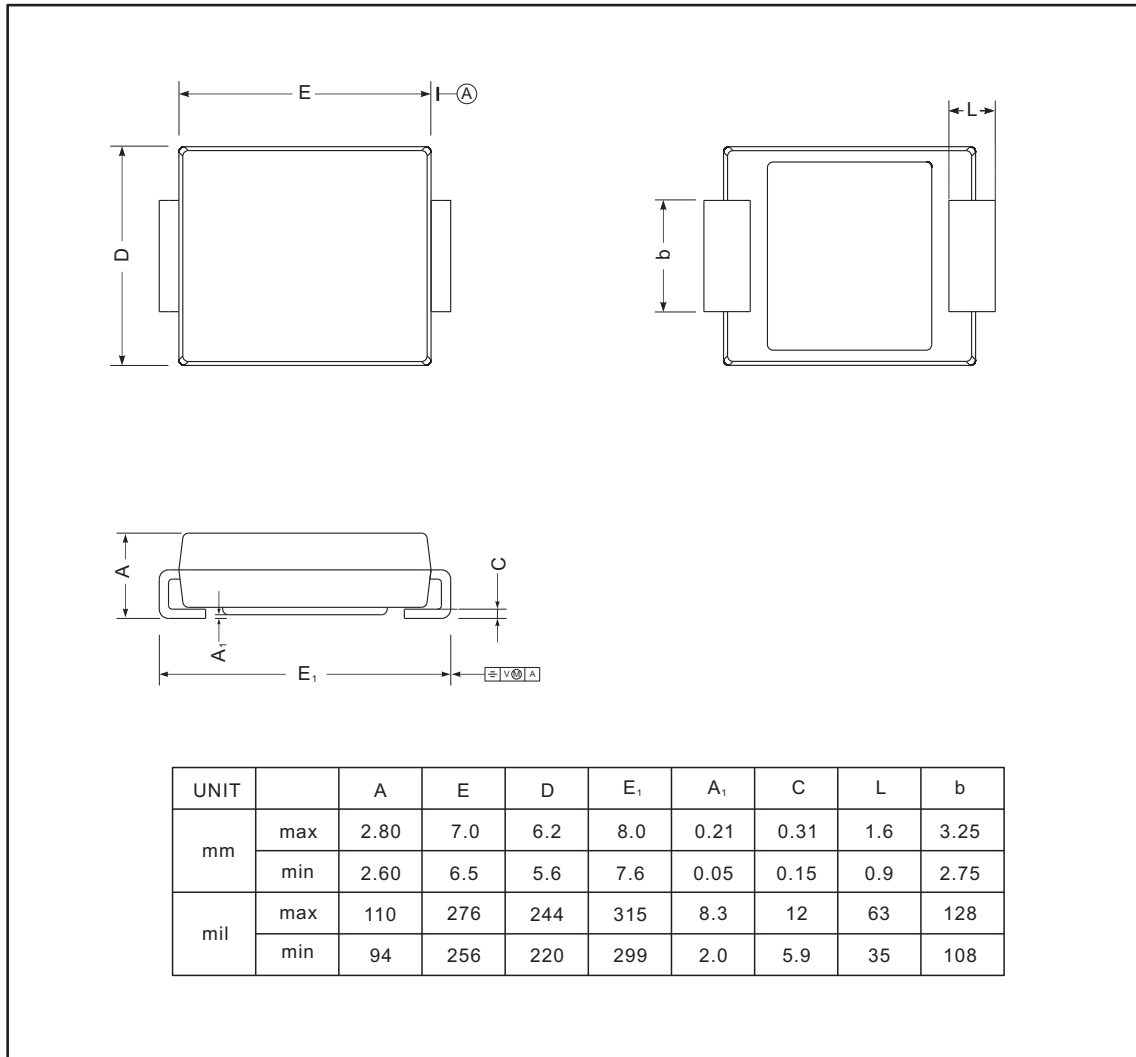
Type Number		Marking		Maximum Allowable Voltage		Varistor Voltage $V_{1mA}$	Maximum Clamping Voltage		Withstanding Surge Current		Maximum Energy		Rated Power W	Typical Capacitance (Reference) @1KHz(pF)
				$V_{AC}$	$V_{DC}$		$I_T$	$V_C$	I(A) Standard	I(A) High Surge	(J) Standard	(J) High Surge		
Standard	High Surge	Standard	High Surge	V	V	V	A	V						
3225D180K	3225D180KJ	3225D180K	3225D180KJ	11	14	18(15~21.6)	1	40	100	250	0.4	0.6	0.01	1400
3225D220K	3225D220KJ	3225D220K	3225D220KJ	14	18	22(19.5~26)	1	48	100	250	0.5	0.7	0.01	1150
3225D270K	3225D270KJ	3225D270K	3225D270KJ	17	22	27(24~30)	1	60	100	250	0.6	0.9	0.01	930
3225D330K	3225D330KJ	3225D330K	3225D330KJ	20	26	33(29.5~36.5)	1	73	100	250	0.8	1.1	0.01	760
3225D390K	3225D390KJ	3225D390K	3225D390KJ	25	31	39(35~43)	1	80	100	250	0.9	1.2	0.01	640
3225D470K	3225D470KJ	3225D470K	3225D470KJ	30	38	47(42~54)	1	104	100	250	1.1	1.5	0.01	530
3225D560K	3225D560KJ	3225D560K	3225D560KJ	35	45	56(50~62)	1	123	100	250	1.3	1.8	0.01	450
3225D680K	3225D680KJ	3225D680K	3225D680KJ	40	56	68(61~75)	1	150	100	250	1.6	2.2	0.01	370
3225D820K	3225D820KJ	3225D820K	3225D820KJ	50	65	82(74~90)	5	145	400	800	2.5	4	0.1	300
3225D101K	3225D101KJ	3225D101K	3225D101KJ	60	85	100(90~110)	5	177	400	800	3	4.1	0.1	250
3225D121K	3225D121KJ	3225D121K	3225D121KJ	75	100	120(108~132)	5	210	400	800	4	4.9	0.1	210
3225D151K	3225D151KJ	3225D151K	3225D151KJ	95	125	150(135~165)	5	260	400	800	4.1	6.5	0.1	165
3225D181K	3225D181KJ	3225D181K	3225D181KJ	115	150	180(162~198)	5	320	400	800	4.9	7.5	0.1	140
3225D201K	3225D201KJ	3225D201K	3225D201KJ	130	170	200(180~220)	5	355	400	800	6.5	8.5	0.1	125
3225D221K	3225D221KJ	3225D221K	3225D221KJ	140	180	220(198~242)	5	380	400	800	7.5	9	0.1	110
3225D241K	3225D241KJ	3225D241K	3225D241KJ	150	200	240(216~264)	5	415	400	800	8	10.5	0.1	100
3225D271K	3225D271KJ	3225D271K	3225D271KJ	175	225	270(243~297)	5	475	400	800	8.5	11	0.1	95
3225D301K	3225D301KJ	3225D301K	3225D301KJ	190	250	300(270~330)	5	520	400	800	9	12	0.1	85
3225D331K	3225D331KJ	3225D331K	3225D331KJ	210	275	330(297~363)	5	570	400	800	9.5	13	0.1	75
3225D361K	3225D361KJ	3225D361K	3225D361KJ	230	300	360(324~396)	5	620	400	800	10	16	0.1	70
3225D391K	3225D391KJ	3225D391K	3225D391KJ	250	320	390(351~429)	5	675	400	800	12	17	0.1	65
3225D431K	3225D431KJ	3225D431K	3225D431KJ	275	350	430(387~473)	5	745	400	800	13	20	0.1	60
3225D471K	3225D471KJ	3225D471K	3225D471KJ	300	385	470(423~517)	5	810	400	800	15	21	0.1	55
3225D511K	3225D511KJ	3225D511K	3225D511KJ	320	415	510(459~561)	5	845	400	800	16	22.5	0.1	50
3225D561K	3225D561KJ	3225D561K	3225D561KJ	350	460	560(504~616)	5	920	400	800	16	24	0.1	50
3225D621K	3225D621KJ	3225D621K	3225D621KJ	385	505	620(558~682)	5	1025	400	800	21	25	0.1	40
3225D681K	3225D681KJ	3225D681K	3225D681KJ	420	560	680(612~748)	5	1120	400	800	21	29	0.1	35
3225D751K	3225D751KJ	3225D751K	3225D751KJ	460	615	750(675~825)	5	1240	400	800	22.4	32	0.1	30



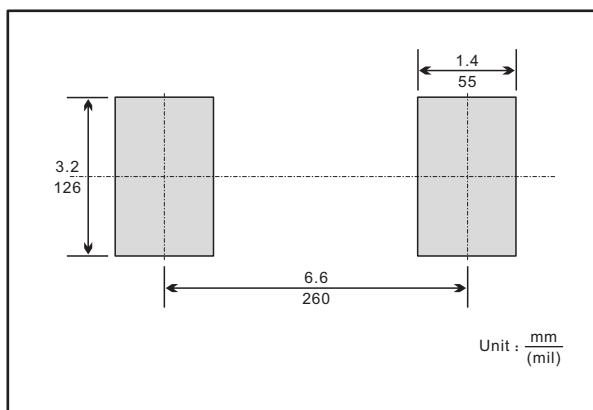
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

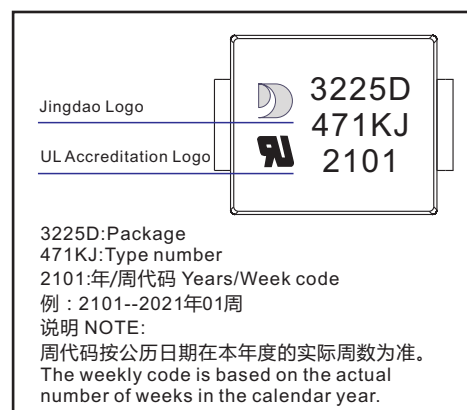
3225



The recommended mounting pad size

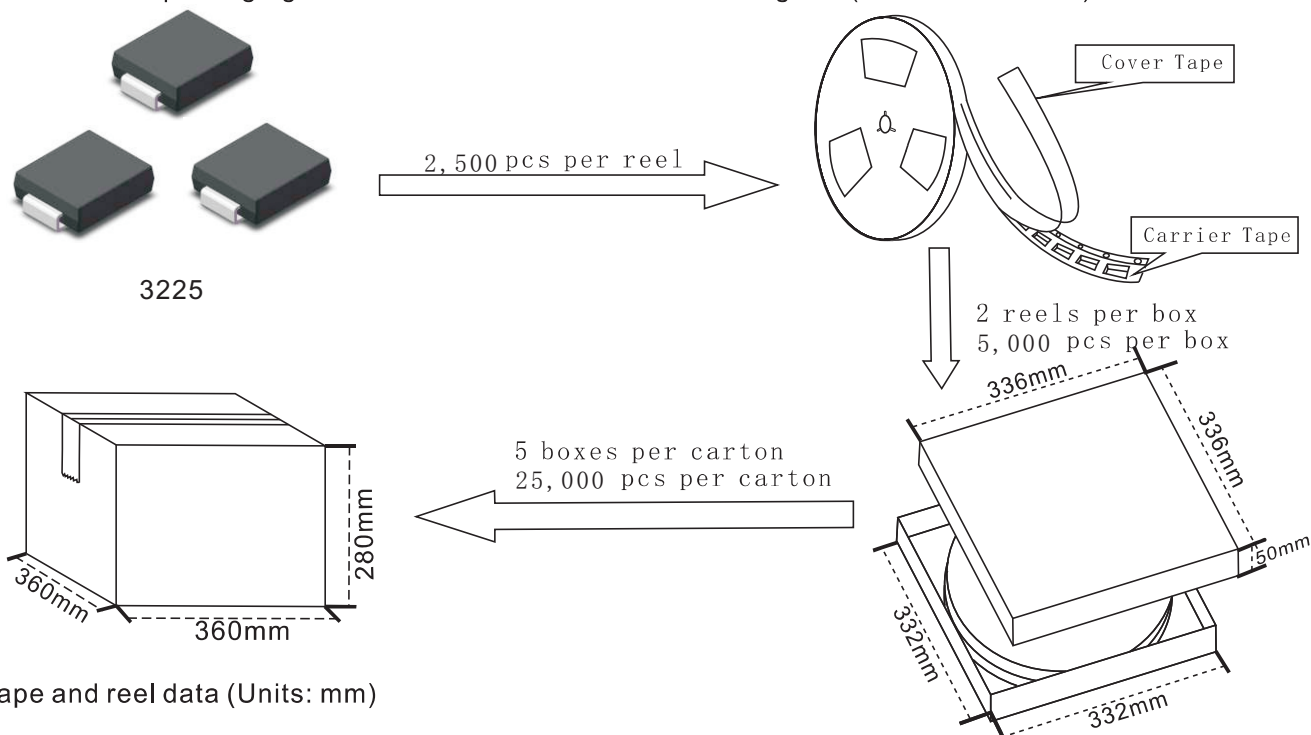


Marking code

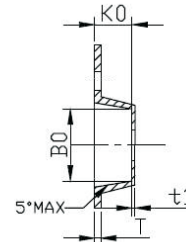
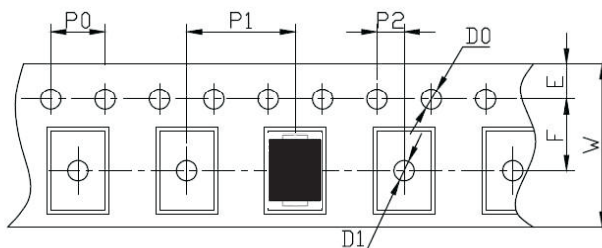
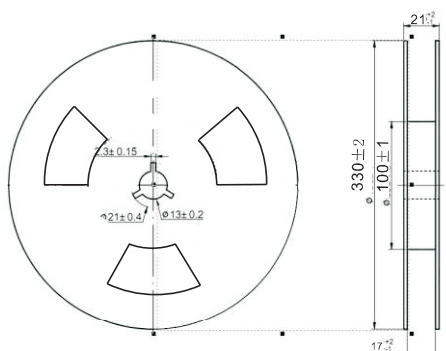




1. The method of packaging and dimension are shown as below figure. (Dimension in mm)



2. Tape and reel data (Units: mm)



Symbol	Spec	Symbol	Spec
W	16.0±0.30	A0	6.22±0.10
E	1.75±0.10	B0	8.31±0.10
F	7.50±0.10	K0	2.49±0.10
D0	1.55±0.05	10P0	40.0±0.20
D1	1.50±0.25		
P0	4.0±0.10		
P1	8.0±0.10		
P2	2.0±0.05		
T	0.28±0.02		
t1	0.08以上		

3. Label

3.1 The information of inner box label must be listed: (Description of a sample label)



TYPE : Part number  
P/N: Customer part number  
QTY: Total quantity  
MARK: Marking code  
LOT-D/C: Lot number - Date code

3.2 The information of carton label must be listed

- 3.2.1 TYPE
- 3.2.2 QTY

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