muRata

Reference Specification

DEF Series/6.3kVp-p

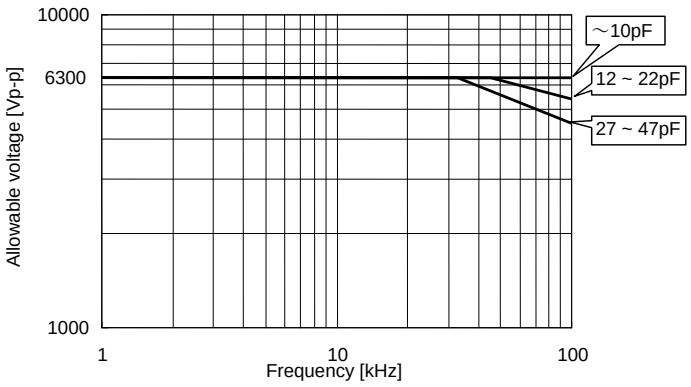
Lead Type Disc Ceramic Capacitors for LCD Backlight Inverter Circuit only

Product specifications in this catalog are as of Dec. 2017, and are subject to change or obsolescence without notice.
Please consult the approval sheet before ordering.Please read rating and Cautions first.

⚠ CAUTION

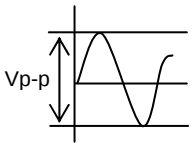
1. OPERATING VOLTAGE

The frequency of the applied sine wave voltage should be less than 100kHz. The applied voltage should be less than the value shown in following figure. In case of non-sine wave which include a harmonic frequency, please contact our sales representatives or product engineers.



The temperature of the surface of capacitor: below the upper limit of its rated operating temperature range (including self-heating.)

The capacitors can be applied maximum 6.3kVp-p at 100kHz when lamps turn on.

Voltage	AC Voltage
Positional Measurement	

2. OPERATING TEMPERATURE AND SELF-GENERATED HEAT

Keep the surface temperature of a capacitor below the upper limit of its rated operating temperature range.

Be sure to take into account the heat generated by the capacitor itself. When the capacitor is used in a high-frequency current, pulse current or similar current, it may self-generate heat due to dielectric loss. Excessive heat may lead to deterioration of the capacitor's characteristics and reliability. (Never attempt to perform measurement with the cooling fan running. Otherwise, accurate measurement cannot be ensured.)

3. FAIL-SAFE

When capacitor would be broken, failure may result in a short circuit. Be sure to provide an appropriate fail-safe function like a fuse on your product if failure would follow an electric shock, fire or fume.

4. VIBRATION AND IMPACT

Do not expose a capacitor or its leads to excessive shock or vibration during use.

5. SOLDERING

When soldering this product to a PCB/PWB, do not exceed the solder heat resistance specification of the capacitor. Subjecting this product to excessive heating could melt the internal junction solder and may result in thermal shocks that can crack the ceramic element.

When soldering capacitor with a soldering iron, it should be performed in following conditions.

Temperature of iron chip : 400 ℃ max.
Soldering iron wattage : 50 W max.
Soldering time : 3.5 s max.

6. BONDING, RESIN MOLDING AND COATING

In case of bonding, molding or coating this product, verify that these processes do not affect the quality of capacitor by testing the performance of the bonded, molded or coated product in the intended equipment.

In case of the amount of applications, dryness / hardening conditions of adhesives and molding resins containing organic solvents (ethyl acetate, methyl ethyl ketone, toluene, etc.) are unsuitable, the outer coating resin of a capacitor is damaged by the organic solvents and it may result, worst case, in a short circuit.

The variation in thickness of adhesive, molding resin or coating may cause a outer coating resin cracking and/or ceramic element cracking of a capacitor in a temperature cycling.

7. TREATMENT AFTER BONDING, RESIN MOLDING AND COATING

When the outer coating is hot (over 100 ℃) after soldering, it becomes soft and fragile.
So please be careful not to give it mechanical stress.

Failure to follow the above cautions may result, worst case, in a short circuit and cause fuming or partial dispersion when the product is used.

8. OPERATING AND STORAGE ENVIRONMENT

The insulating coating of capacitors does not form a perfect seal; therefore, do not use or store capacitors in a corrosive atmosphere, especially where chloride gas, sulfide gas, acid, alkali, salt or the like are present. And avoid exposure to moisture. Before cleaning, bonding, or molding this product, verify that these processes do not affect product quality by testing the performance of a cleaned, bonded or molded product in the intended equipment. Store the capacitors where the temperature and relative humidity do not exceed -10 to 40 °C and 15 to 85%. Use capacitors within 6 months after delivered.
Check the solderability after 6 months or more.

9. LIMITATION OF APPLICATIONS

Please contact us before using our products for the applications listed below which require especially high reliability for the prevention of defects which might directly cause damage to the third party's life, body or property.

1. Aircraft equipment
2. Aerospace equipment
3. Undersea equipment
4. Power plant control equipment
5. Medical equipment
6. Transportation equipment (vehicles, trains, ships, etc.)
7. Traffic signal equipment
8. Disaster prevention / crime prevention equipment
9. Data-processing equipment exerting influence on public
10. Application of similar complexity and/or reliability requirements to the applications listed in the above.

NOTICE

1. CLEANING (ULTRASONIC CLEANING)

To perform ultrasonic cleaning, observe the following conditions.
Rinse bath capacity: Output of 20 watts per liter or less.
Rinsing time: 5 min maximum.
Do not vibrate the PCB/PWB directly.
Excessive ultrasonic cleaning may lead to fatigue destruction of the lead wires.

2. CAPACITANCE CHANGE OF CAPACITORS

Capacitance might change a little depending on a surrounding temperature or an applied voltage.
Please contact us if you use for the strict time constant circuit.

⚠ **NOTE**

1. Please make sure that your product has been evaluated in view of your specifications with our product
   being mounted to your product.
2. You are requested not to use our product deviating from this specification.

1. Application

This specification is applied to Lead Type Disc Ceramic Capacitors DEF series used for LCD Backlight Inverter Circuit only.
Please contact us when using this product for any other applications than described in the above.
Do not use these products in any automotive power train or safety equipment including battery chargers for electric vehicles and plug-in hybrids.

2. Rating

2-1. Operating temperature range

-25 ~ +105°C

2-2. Part number configuration

ex.)	DEF	2C	LH	100	J	A3	B	
	Series	Temperature characteristic	Rated voltage	Capacitance	Capacitance tolerance	Lead code	Packing style code	Individual specification

- Temperature characteristic

Code	Temperature characteristic
2C	CH
1X	SL

Please confirm detailed specification on [Specification and test methods].

- Rated voltage

Code	Rated voltage
LH	6.3kVp-p

Please confirm detailed specification on [OPERATING VOLTAGE].

- Capacitance

The first two digits denote significant figures ; the last digit denotes the multiplier of 10 in pF.
ex.) In case of 100.

$10 \times 10^0 = 10pF$

- Capacitance tolerance

Please refer to [Part number list].

- Lead code

Code	Lead style
A*	Vertical crimp long type
J*	Vertical crimp short type
N*	Vertical crimp taping type

* Please refer to [Part number list].

Solder coated copper wire is applied for termination.

- Packing style code

Code	Packing type
B	Bulk type
A	Ammo pack taping type

- Individual specification

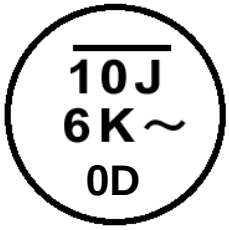
In case part number cannot be identified without ‘individual specification’ , it is added at the end of part number.

3. Marking

Temperature characteristic : Upper horizontal line for char. CH(Omitted for char. SL)
Nominal capacitance : Actual value
Capacitance tolerance : Code
Rated voltage : Letter code(Marked with 6K～)
Manufacturing year : Letter code(The last digit of A.D. year.)
Manufacturing month : Code

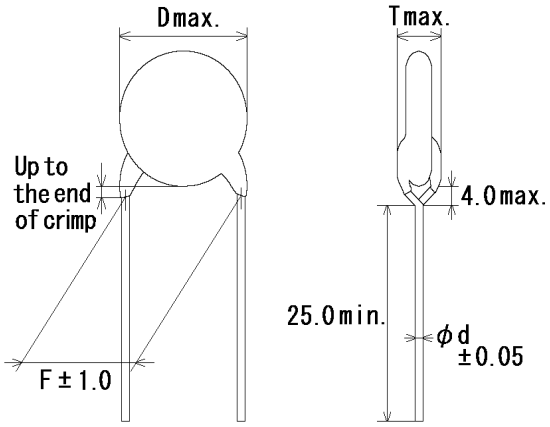
Feb./Mar. → 2	Aug./Sep. → 8
Apr./May → 4	Oct./Nov. → O
Jun./Jul. → 6	Dec./Jan. → D

(Example)



4. Part number list

・Vertical crimp long type
(Lead code:A*)

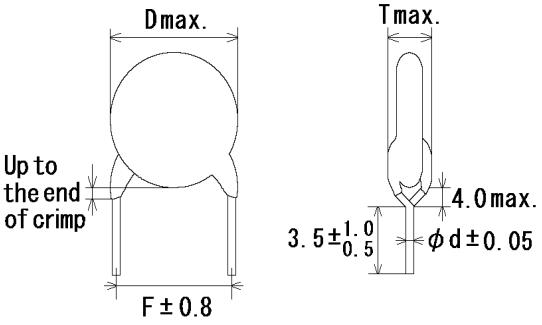


Note) The mark '*' of lead code differ from lead spacing(F) and lead diameter(d).
Please see the following list about details.

Unit : mm

T.C.	Cap. (pF)	Cap. tol.	Customer Part Number	Murata Part Number	Dimension (mm)				Lead code	Pack qty. (pcs)
					D	T	F	d		
CH	2	±0.25pF		DEF2CLH020CA3B	7.0	6.0	7.5	0.6	A3	250
CH	3	±0.25pF		DEF2CLH030CA3B	7.0	6.0	7.5	0.6	A3	250
CH	4	±0.25pF		DEF2CLH040CA3B	7.0	6.0	7.5	0.6	A3	250
CH	5	±0.5pF		DEF2CLH050DA3B	7.0	6.0	7.5	0.6	A3	250
CH	6	±0.5pF		DEF2CLH060DA3B	7.0	6.0	7.5	0.6	A3	250
CH	7	±0.5pF		DEF2CLH070DA3B	8.0	6.0	7.5	0.6	A3	250
CH	8	±0.5pF		DEF2CLH080DA3B	8.0	6.0	7.5	0.6	A3	250
CH	9	±0.5pF		DEF2CLH090DA3B	8.0	6.0	7.5	0.6	A3	250
CH	10	±5%		DEF2CLH100JA3B	8.0	6.0	7.5	0.6	A3	250
SL	10	±5%		DEF1XLH100JA3B	7.0	6.0	7.5	0.6	A3	250
SL	12	±5%		DEF1XLH120JA3B	7.0	6.0	7.5	0.6	A3	250
SL	15	±5%		DEF1XLH150JA3B	7.0	6.0	7.5	0.6	A3	250
SL	18	±5%		DEF1XLH180JA3B	7.0	6.0	7.5	0.6	A3	250
SL	22	±5%		DEF1XLH220JA3B	7.0	6.0	7.5	0.6	A3	250
SL	27	±5%		DEF1XLH270JA3B	8.0	6.0	7.5	0.6	A3	250
SL	33	±5%		DEF1XLH330JA3B	9.0	6.0	7.5	0.6	A3	250
SL	39	±5%		DEF1XLH390JA3B	9.0	6.0	7.5	0.6	A3	250
SL	47	±5%		DEF1XLH470JA3B	9.0	6.0	7.5	0.6	A3	250

·Vertical crimp short type
(Lead code:J*)

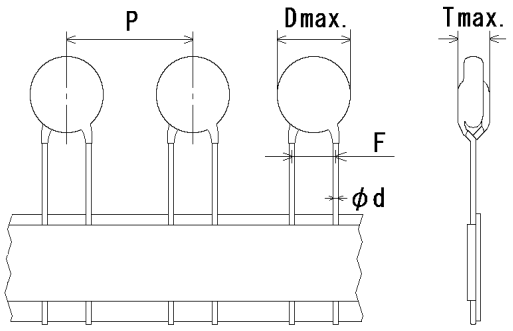


Note) The mark '*' of lead code differ from lead spacing(F) and lead diameter(d).
Please see the following list about details.

Unit : mm

T.C.	Cap. (pF)	Cap. tol.	Customer Part Number	Murata Part Number	Dimension (mm)				Lead code	Pack qty. (pcs)
					D	T	F	d		
CH	2	±0.25pF		DEF2CLH020CJ3B	7.0	6.0	7.5	0.6	J3	500
CH	3	±0.25pF		DEF2CLH030CJ3B	7.0	6.0	7.5	0.6	J3	500
CH	4	±0.25pF		DEF2CLH040CJ3B	7.0	6.0	7.5	0.6	J3	500
CH	5	±0.5pF		DEF2CLH050DJ3B	7.0	6.0	7.5	0.6	J3	500
CH	6	±0.5pF		DEF2CLH060DJ3B	7.0	6.0	7.5	0.6	J3	500
CH	7	±0.5pF		DEF2CLH070DJ3B	8.0	6.0	7.5	0.6	J3	500
CH	8	±0.5pF		DEF2CLH080DJ3B	8.0	6.0	7.5	0.6	J3	500
CH	9	±0.5pF		DEF2CLH090DJ3B	8.0	6.0	7.5	0.6	J3	500
CH	10	±5%		DEF2CLH100JJ3B	8.0	6.0	7.5	0.6	J3	500
SL	10	±5%		DEF1XLH100JJ3B	7.0	6.0	7.5	0.6	J3	500
SL	12	±5%		DEF1XLH120JJ3B	7.0	6.0	7.5	0.6	J3	500
SL	15	±5%		DEF1XLH150JJ3B	7.0	6.0	7.5	0.6	J3	500
SL	18	±5%		DEF1XLH180JJ3B	7.0	6.0	7.5	0.6	J3	500
SL	22	±5%		DEF1XLH220JJ3B	7.0	6.0	7.5	0.6	J3	500
SL	27	±5%		DEF1XLH270JJ3B	8.0	6.0	7.5	0.6	J3	500
SL	33	±5%		DEF1XLH330JJ3B	9.0	6.0	7.5	0.6	J3	500
SL	39	±5%		DEF1XLH390JJ3B	9.0	6.0	7.5	0.6	J3	500
SL	47	±5%		DEF1XLH470JJ3B	9.0	6.0	7.5	0.6	J3	500

·Vartical crimp taping type
(Lead code:N*)

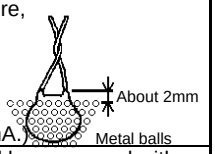


Note) The mark '*' of lead code differ from lead spacing(F), lead diameter(d) and pitch of component(P). Please see the following list or taping specification about details.

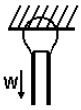
Unit : mm

T.C.	Cap. (pF)	Cap. tol.	Customer Part Number	Murata Part Number	Dimension (mm)					Lead code	Pack qty. (pcs)
					D	T	F	d	P		
CH	2	±0.25pF		DEF2CLH020CN3A	7.0	6.0	7.5	0.6	15.0	N3	900
CH	3	±0.25pF		DEF2CLH030CN3A	7.0	6.0	7.5	0.6	15.0	N3	900
CH	4	±0.25pF		DEF2CLH040CN3A	7.0	6.0	7.5	0.6	15.0	N3	900
CH	5	±0.5pF		DEF2CLH050DN3A	7.0	6.0	7.5	0.6	15.0	N3	900
CH	6	±0.5pF		DEF2CLH060DN3A	7.0	6.0	7.5	0.6	15.0	N3	900
CH	7	±0.5pF		DEF2CLH070DN3A	8.0	6.0	7.5	0.6	15.0	N3	900
CH	8	±0.5pF		DEF2CLH080DN3A	8.0	6.0	7.5	0.6	15.0	N3	900
CH	9	±0.5pF		DEF2CLH090DN3A	8.0	6.0	7.5	0.6	15.0	N3	900
CH	10	±5%		DEF2CLH100JN3A	8.0	6.0	7.5	0.6	15.0	N3	900
SL	10	±5%		DEF1XLH100JN3A	7.0	6.0	7.5	0.6	15.0	N3	900
SL	12	±5%		DEF1XLH120JN3A	7.0	6.0	7.5	0.6	15.0	N3	900
SL	15	±5%		DEF1XLH150JN3A	7.0	6.0	7.5	0.6	15.0	N3	900
SL	18	±5%		DEF1XLH180JN3A	7.0	6.0	7.5	0.6	15.0	N3	900
SL	22	±5%		DEF1XLH220JN3A	7.0	6.0	7.5	0.6	15.0	N3	900
SL	27	±5%		DEF1XLH270JN3A	8.0	6.0	7.5	0.6	15.0	N3	900
SL	33	±5%		DEF1XLH330JN3A	9.0	6.0	7.5	0.6	15.0	N3	900
SL	39	±5%		DEF1XLH390JN3A	9.0	6.0	7.5	0.6	15.0	N3	900
SL	47	±5%		DEF1XLH470JN3A	9.0	6.0	7.5	0.6	15.0	N3	900

5. Specification and test methods

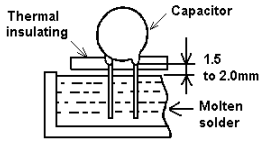
No.	Item		Specification	Test method
1	Appearance and dimensions		No marked defect on appearance form and dimensions. Please refer to [Part number list].	The capacitor should be inspected by naked eyes for visible evidence of defect. Dimensions should be measured with slide calipers.
2	Marking		To be easily legible.	The capacitor should be inspected by naked eyes.
3	Dielectric strength	Between lead wires	No failure.	The capacitor should not be damaged when DC12.6kV applied between the lead wires for 1 to 5 s. (Charge/Discharge current≤50mA.)
		Body insulation	No failure.	The capacitor is placed in the container with metal balls of diameter 1mm so that each lead wire, shortcircuited, is kept about 2mm off the balls as shown in the figure, and DC voltage of 1.3kV is applied for 1 to 5 s between capacitor lead wires and small metals. (Charge/Discharge current≤50mA.) 
4	Insulation Resistance (I.R.)	Between lead wires	10000MΩ min.	The insulation resistance should be measured with DC500±50V within 60±5 s of charging.
5	Capacitance		Within specified tolerance.	The capacitance should be measured at 20°C with 1±0.2MHz and AC5V(r.m.s.) max..
6	Q		400+20C*²min. (30pF under) 1000 min. (30pF min.)	The Q should be measured at 20°C with 1±0.2MHz and AC5V(r.m.s.) max..
7	Temperature characteristic		Char. CH : 0±60ppm/°C Char. SL : +350 to - 1000ppm/°C (Temp. range: +20 to 85°C)	The capacitance measurement should be made at each step specified in Table.

Step	1	2	3	4	5
Temp.(°C)	20±2	-25±3	20±2	85±2	20±2

8	Strength of lead	Pull	Lead wire should not cut off. Capacitor should not be broken.	As shown in the figure at right, fix the body of the capacitor and apply a tensile weight gradually to each lead wire in the radial direction of the capacitor up to 10N and keep it for 10±1 s. 
		Bending		Each lead wire should be subjected to 5N of weight and bent 90° at the point of egress, in one direction, then returned to its original position and bent 90° in the opposite direction at the rate of one bend in 2 to 3 s.
9	Vibration resistance	Appearance	No marked defect.	The capacitor should be firmly soldered to the supporting lead wire and vibrated at a frequency range of 10 to 55Hz, 1.5mm in total amplitude, with about a 1min rate of vibration change from 10Hz to 55Hz and back to 10Hz. Apply for a total of 6 h; 2 h each in 3 mutually perpendicular directions.
		Capacitance	Within specified tolerance.	
		Q	400+20C*²min. (30pF under) 1000 min. (30pF min.)	
10	Solderability of leads		Lead wire should be soldered with uniformly coated on the axial direction over 3/4 of the circumferential direction.	The lead wire of a capacitor should be dipped into a ethanol solution of 25wt% rosin and then into molten solder for 2±0.5 s. In both cases the depth of dipping is up to about 1.5 to 2.0mm from the root of lead wires. Temp. of solder : 245±5°C Lead Free Solder (Sn-3Ag-0.5Cu) 235±5°C H63 Eutectic Solder

*¹ "room condition" Temperature: 15 to 35°C, Relative humidity: 45 to 75%, Atmospheric pressure: 86 to 106kPa
*² "C" expresses nominal capacitance value (pF)

Reference only

<table>
<tr><th>No.</th><th colspan="2">Item</th><th>Specification</th><th>Test method</th></tr>
<tr><td>11</td><td>Soldering effect
(Non-preheat)</td><td>Appearance</td><td>No marked defect.</td><td rowspan="3">The lead wire should be immersed into the melted solder of 350±10°C up to about 1.5 to 2.0mm from the main body for 3.5±0.5 s.
Post-treatment : Capacitor should be stored for 1 to 2 h at *1room condition.</td></tr>
<tr><td></td><td>Capacitance change</td><td>Within ± 2.5%</td></tr>
<tr><td></td><td>Dielectric strength (Between lead wires)</td><td>Per item 3.</td></tr>
<tr><td>12</td><td>Soldering effect
(On-preheat)</td><td>Appearance</td><td>No marked defect.</td><td rowspan="3">First the capacitor should be stored at 120+0/-5°C for 60+0/-5 s.
Then, as in figure, the lead wires should be immersed solder of 260+0/-5°C up to 1.5 to 2.0mm from the root of terminal for 7.5+0/-1 s.
 

Post-treatment : Capacitor should be stored for 1 to 2 h at *1room condition.</td></tr>
<tr><td></td><td>Capacitance change</td><td>Within ± 2.5%</td></tr>
<tr><td></td><td>Dielectric strength (Between lead wires)</td><td>Per item 3.</td></tr>
<tr><td>13</td><td>Humidity
(Under steady state)</td><td>Appearance</td><td>No marked defect.</td><td rowspan="4">Set the capacitor for 500 +24/-0 h at 40±2°C in 90 to 95% relative humidity.
Post-treatment : Capacitor should be stored for 1 to 2 h at *1room condition.</td></tr>
<tr><td></td><td>Capacitance change</td><td>Within ± 5%</td></tr>
<tr><td></td><td>Q</td><td>200+10C*2min. (10pF under)
275+5/2C*2min.
(10pF min. and 30pF under)
350 min. (30pF min.)</td></tr>
<tr><td></td><td>I.R.</td><td>1000MΩ min.</td></tr>
<tr><td>14</td><td>Life</td><td>Appearance</td><td>No marked defect.</td><td rowspan="4">Apply 6.3kVp-p at the frequency in Table for 1000 +48/-0 h at 105±2°C, and relative humidity of 50% max.. (Charge/Discharge current≤50mA.)
<Frequency>
<table><tr><th>Capacitance(pF)</th><th>Frequency(kHz)</th></tr><tr><td>～10</td><td>100</td></tr><tr><td>12～22</td><td>45</td></tr><tr><td>27～47</td><td>33</td></tr></table>
Post-treatment : Capacitor should be stored for 1 to 2 h at *1room condition.</td></tr>
<tr><td></td><td></td><td>Capacitance change</td><td>Within ± 3%</td></tr>
<tr><td></td><td></td><td>Q</td><td>200+10C*2min. (10pF under)
275+5/2C*2min.
(10pF min. and 30pF under)
350 min. (30pF min.)</td></tr>
<tr><td></td><td></td><td>I.R.</td><td>2000MΩ min.</td></tr>
<tr><td>15</td><td>Temperature and Immersion cycle</td><td>Appearance</td><td>No marked defect.</td><td rowspan="5">The capacitor should be subjected to 5 temperature cycles, then consecutively to 2 immersion cycles.

<Temperature cycle>
<table><tr><th>Step</th><th>Temperature(°C)</th><th>Time</th></tr><tr><td>1</td><td>-25±3</td><td>30 min</td></tr><tr><td>2</td><td>Room Temp.</td><td>3 min</td></tr><tr><td>3</td><td>+105±3</td><td>30 min</td></tr><tr><td>4</td><td>Room Temp.</td><td>3 min</td></tr></table>
Cycle time : 5 cycle
<Immersion cycle>
<table><tr><th>Step</th><th>Temperature(°C)</th><th>Time</th><th>Immersion water</th></tr><tr><td>1</td><td>+65+5/-0</td><td>15 min</td><td>Clean water</td></tr><tr><td>2</td><td>0±3</td><td>15 min</td><td>Salt water</td></tr></table>
Cycle time : 2 cycle

Post-treatment : Capacitor should be stored for 4 to 24 h at *1room condition.</td></tr>
<tr><td></td><td></td><td>Capacitance change</td><td>Within ± 3%</td></tr>
<tr><td></td><td></td><td>Q</td><td>200+10C*2min. (10pF under)
275+5/2C*2min.
(10pF min. and 30pF under)
350 min. (30pF min.)</td></tr>
<tr><td></td><td></td><td>I.R.</td><td>2000MΩ min.</td></tr>
<tr><td></td><td></td><td>Dielectric strength (Between lead wires)</td><td>Per item 3.</td></tr>
</table>

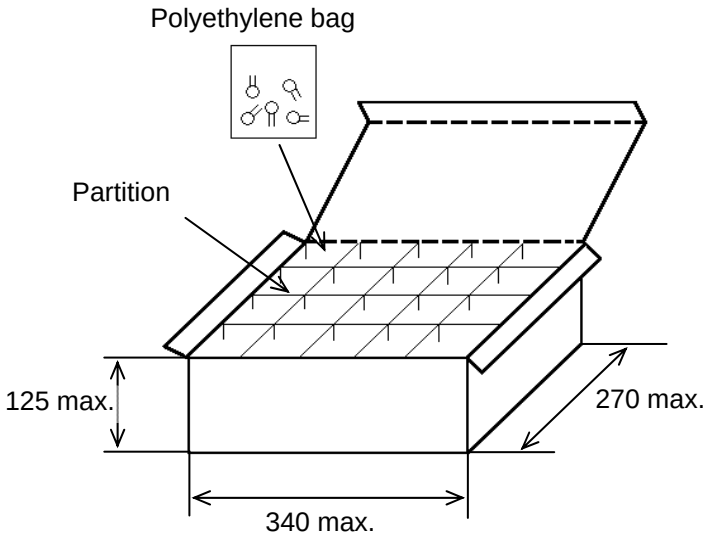
*1 "room condition" Temperature: 15 to 35°C, Relative humidity: 45 to 75%, Atmospheric pressure: 86 to 106kPa
*2 "C" expresses nominal capacitance value (pF)

6.Packing specification

•Bulk type (Packing style code : B)

$$\text{The number of packing} = \frac{*1}{\text{Packing quantity}} \times \frac{*2}{n}$$

The size of packing case and packing way



Unit : mm

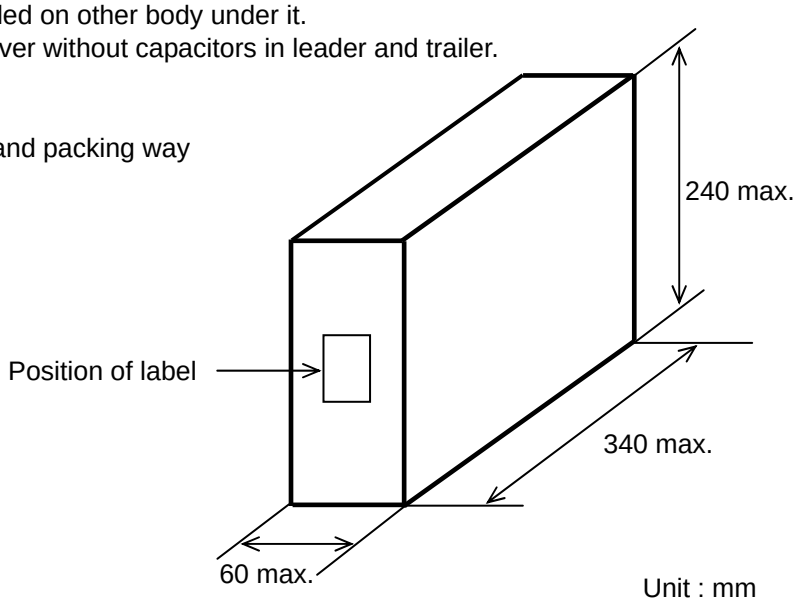
∗1 : Please refer to [Part number list].
∗2 : Standard n = 20 (bag)

Note)
The outer package and the number of outer packing be changed by the order getting amount.

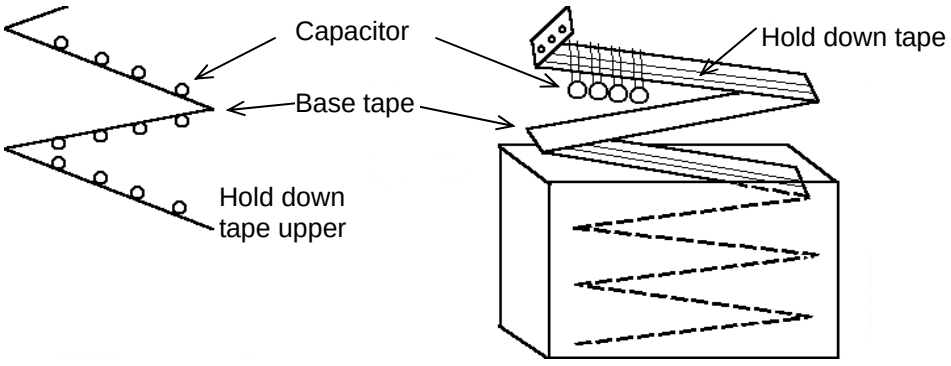
•Ammo pack taping type (Packing style code : A)

· The tape with capacitors is packed zigzag into a case.
· When body of the capacitor is piled on other body under it.
· There should be 3 pitches and over without capacitors in leader and trailer.

The size of packing case and packing way



Unit : mm

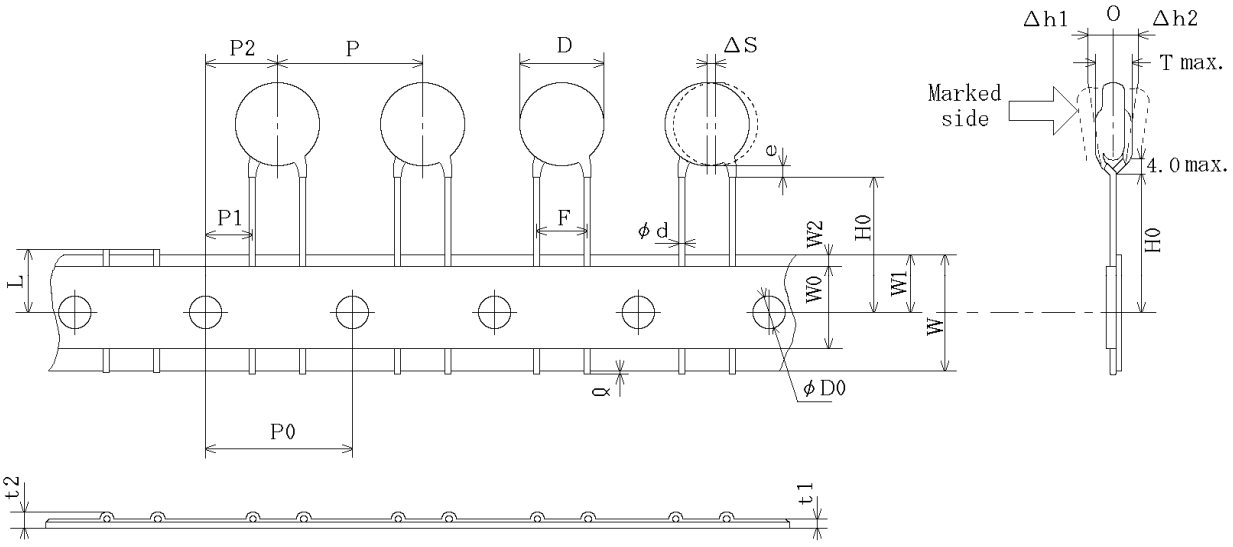


7. Taping specification

7-1. Dimension of capacitors on tape

Vertical crimp taping type < Lead code : N3 >

Pitch of component 15.0mm / Lead spacing 7.5mm

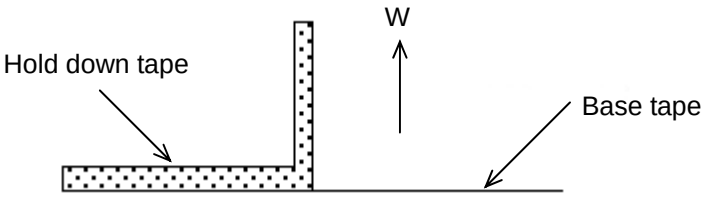


Unit : mm

Item	Code	Dimensions	Remarks
Pitch of component	P	15.0±2.0	
Pitch of sprocket hole	P0	15.0±0.3	
Lead spacing	F	7.5±1.0	
Length from hole center to component center	P2	7.5±1.5	Deviation of progress direction
Length from hole center to lead	P1	3.75±1.0	
Body diameter	D	Please refer to [Part number list].	
Deviation along tape, left or right	ΔS	0±2.0	They include deviation by lead bend .
Carrier tape width	W	18.0±0.5	
Position of sprocket hole	W1	9.0±0.5	Deviation of tape width direction
Lead distance between reference and bottom planes	H0	$18.0\pm^{2.0}_{0}$	
Protrusion length	Ω	+0.5~−1.0	
Diameter of sprocket hole	φD0	4.0±0.1	
Lead diameter	φd	0.60±0.05	
Total tape thickness	t1	0.6±0.3	They include hold down tape thickness.
Total thickness, tape and lead wire	t2	1.5 max.	
Deviation across tape, front	Δh1	2.0 max.	
Deviation across tape, rear	Δh2		
Portion to cut in case of defect	L	$11.0\pm^{0}_{1.0}$	
Hold down tape width	W0	11.5 min.	
Hold down tape position	W2	1.5±1.5	
Coating extension on lead	e	Up to the end of crimp	
Body thickness	T	Please refer to [Part number list].	

7-2. Splicing way of tape

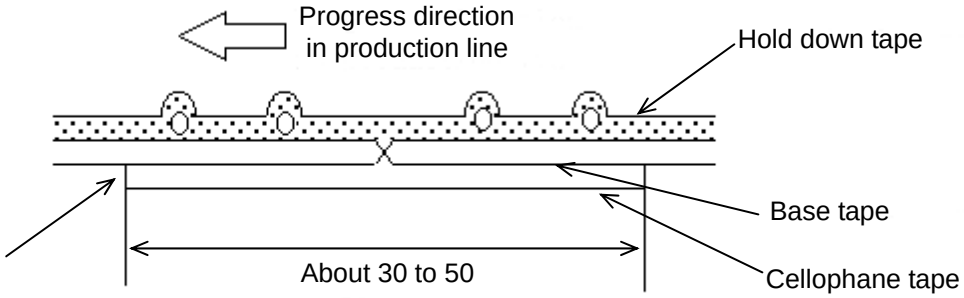
1) Adhesive force of tape is over 3N at test condition as below.



2) Splicing of tape

a) When base tape is spliced

- Base tape should be spliced by cellophane tape.
  (Total tape thickness should be less than 1.05mm.)

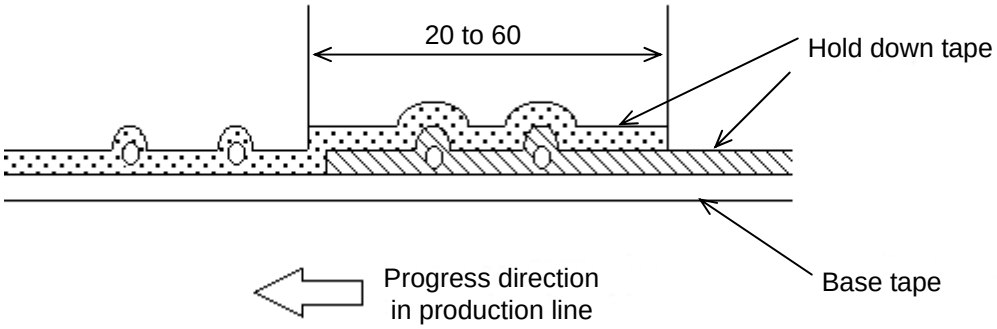


No lifting for the direction of progressing

Unit : mm

b) When hold down tape is spliced

- Hold down tape should be spliced with overlapping.
  (Total tape thickness should be less than 1.05mm.)



Unit : mm

c) When both tape are spliced

- Base tape and hold down tape should be spliced with splicing tape.

3) Missing components

- There should be no consecutive missing of more than three components.
- The number of missing components should be not more than 0.5% of total components that should be present in a Ammo pack.

Appendix
添付資料

EU RoHS
RoHS指令への対応

This products of the following crresponds to EU RoHS
当製品は以下の欧州RoHSに対応しています。

(1) RoHS

EU RoHs 2011/65/EC compliance
2011/65/EC（改正RoHS指令）に対応

maximum concentration values tolerated by weight in homogeneous materials
・1000 ppm maximum Lead
・1000 ppm maximum Mercury
・100 ppm maximum Cadmium
・1000 ppm maximum Hexavalent chromium
・1000 ppm maximum Polybrominated biphenyls (PBB)
・1000 ppm maximum Polybrominated diphenyl ethers (PBDE)

鉛：1000ppm以下
水銀：1000ppm以下
カドミウム：100ppm以下
六価クロム：1000ppm以下
ポリ臭化ビフェニル(PBB)：1000ppm以下
ポリ臭化ジフェニルエーテル(PBDE)：1000ppm以下

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Ceramic Disc Capacitors ***category:***

Click to view products by Murata ***manufacturer:***

Other Similar products are found below :

5AU100JCECA 5AU220JCGCA 5AU560JCJCA DEF2CLH020CA3B NCD103M500Z5UF DEF2CLH030CJ3B 101GHR102K NCD101K1KVY5FF NCD103Z50Z5VTRF NCD220K1KVSLF F471K39S3NR63K7R DEF2CLH040CN3A DEF2CLH080DA3B 564R3DF0T22 C1210N561J102T CD70ZU2GA102MYAKA 8903D0 90410-10 0838-040-X7R0-220K SL102101J060BAND5P JN102MQ35FAAAAKPLP 0841-040-X5U0-103M ZU501103M090B20C6P SL102181J070HAND5P SL102151J070HAND5P ZU501102M050B20C6P SL500180J040B20C2P ZU102103M100B20C0P F121K25S3NN63J5R F121K25S3NP63K7R F121K25S3NR63K7R F122K47S3NP63K7R F151K29S3NR63K7R F222K47S3NN63J7R F681K43S3NR63K7R HVCC103Y6P152MEAX F681K29S3NN63J5R S103Z43Y5VN6TJ5R TCC0805X7R472K501FT C947U392MZVDBA7317 CCK-22N CCK-2P2 CCK-4P7 RDE5C1H102J0ZAH03P CCK-470P 564R30GAD10KA 25YD22-R DHS4E4G141MCXB DEJF3E2472ZB3B DEA1X3F390JC3B