

## High Voltage Ceramic Singlelayer DC Disc Capacitors, Class 1, Low Loss, 25 kV<sub>DC</sub>



### FEATURES

- High capacitance in small sizes
- Low losses
- Wide range of different lead styles
- Material categorization:  
for definitions of compliance please see  
[www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)


**RoHS**  
COMPLIANT

### APPLICATIONS

- SMPS
- DC and pulse high voltage
- X-ray and laser equipment

### DESIGN

The capacitors consist of ceramic disc both sides of which are silver plated. Connection leads are made of tinned copper having diameters of 0.8 mm.

The capacitors may be supplied with straight or kinked leads having a lead spacing of 10.0 mm.

Coating is made of blue colored flame retardant epoxy resin in accordance with UL 94 V-0.

### CAPACITANCE RANGE

12 pF to 36 pF

### RATED VOLTAGE

25 kV<sub>DC</sub>

### DIELECTRIC STRENGTH

35 000 V<sub>DC</sub>, 5 s Component test

### INSULATION RESISTANCE AT 500 V<sub>DC</sub>

≥ 100 000 MΩ (60 s)

### TOLERANCE ON CAPACITANCE

± 20 %, (± 10 % available on request)

### DISSIPATION FACTOR

Max. 0.5 % (1 kHz)

### QUICK REFERENCE DATA

| DESCRIPTION                | VALUE       |
|----------------------------|-------------|
| Ceramic Class              | 1           |
| Ceramic Dielectric         | N750, N2200 |
| Voltage (V <sub>DC</sub> ) | 25 000      |
| Min. Capacitance (pF)      | 12          |
| Max. Capacitance (pF)      | 36          |
| Mounting                   | Radial      |

### MARKING

Marking indicates series, capacitance and tolerance code.

### OPERATING TEMPERATURE RANGE

-40 °C to +125 °C

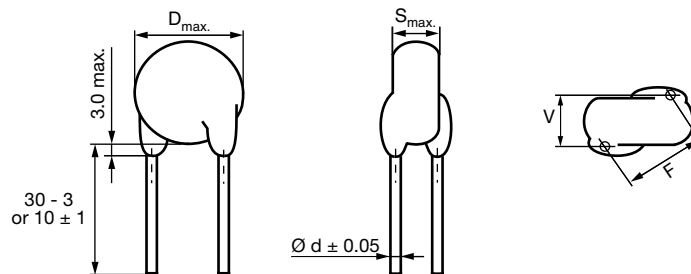
### TEMPERATURE CHARACTERISTICS

N750, N2200

### SECTIONAL SPECIFICATIONS

Climatic category (according to EN 60068-1):  
40/125/21

## DIMENSIONS in millimeters



## ORDERING INFORMATION

| CAPACITANCE<br>(pF) | TOLERANCE<br>(%)    | BODY<br>DIAMETER<br>D <sub>max.</sub> (mm) | BODY<br>THICKNESS<br>S <sub>max.</sub> (mm) | LEAD<br>SPACING <sup>(1)</sup><br>F (mm)<br>± 1 mm | LEAD<br>DIAMETER <sup>(1)</sup><br>d (mm)<br>± 0.05 mm | WIDTH <sup>(1)</sup><br>V (mm)<br>± 0.5 mm | ORDERING CODE                                |
|---------------------|---------------------|--------------------------------------------|---------------------------------------------|----------------------------------------------------|--------------------------------------------------------|--------------------------------------------|----------------------------------------------|
|                     |                     |                                            |                                             |                                                    |                                                        |                                            | MISSING DIGITS<br>SEE ORDERING<br>CODE BELOW |
| N750 (U2J)          |                     |                                            |                                             |                                                    |                                                        |                                            |                                              |
| 12                  | ± 20 <sup>(2)</sup> | 10.0                                       | 8.0                                         | 10.0                                               | 0.8                                                    | 4.0                                        | IEL120MBQ###KR                               |
| 15                  |                     |                                            |                                             |                                                    |                                                        |                                            | IEL150MBQ###KR                               |
| N2200 (R3L)         |                     |                                            |                                             |                                                    |                                                        |                                            |                                              |
| 36                  | ± 20 <sup>(2)</sup> | 10.0                                       | 8.0                                         | 10.0                                               | 0.8                                                    | 4.0                                        | IEL360MBQ###KR                               |

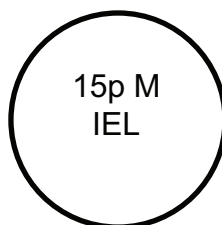
### Notes

- <sup>(1)</sup> Standard lead configuration, other lead spacing and diameter available on request  
<sup>(2)</sup>  $\pm 10$  % available on request

## ORDERING CODE

| #              | 7 <sup>th</sup> digit                      | Capacitance tolerance | $\pm 10$ % = K, $\pm 20$ % = M |              |                    |               |                |
|----------------|--------------------------------------------|-----------------------|--------------------------------|--------------|--------------------|---------------|----------------|
| ###            | 10 <sup>th</sup> to 12 <sup>th</sup> digit | Lead configuration    | see "General Information"      |              |                    |               |                |
| <b>Example</b> | <b>IEL</b>                                 | <b>150</b>            | <b>M</b>                       | <b>BQ</b>    | <b>DF0</b>         | <b>K</b>      | <b>R</b>       |
|                | Series                                     | Capacitance value     | Tolerance code                 | Voltage code | Lead configuration | Internal code | RoHS compliant |

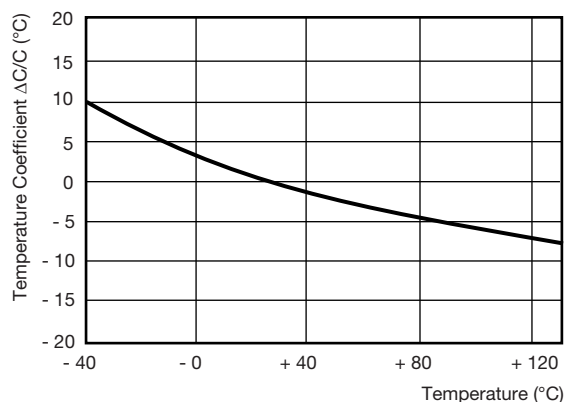
## MARKING



IEL 12 pF to 36 pF

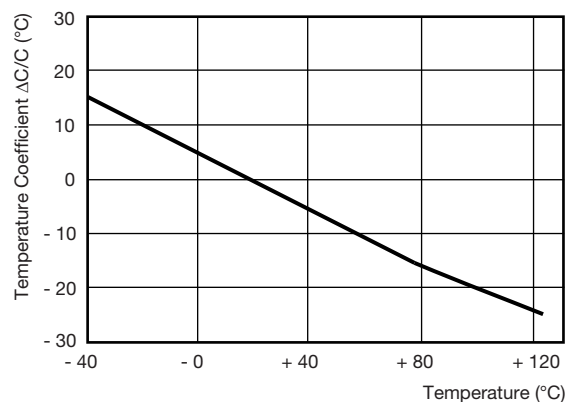


**CERAMIC DIELECTRIC. N750 (U2J)**

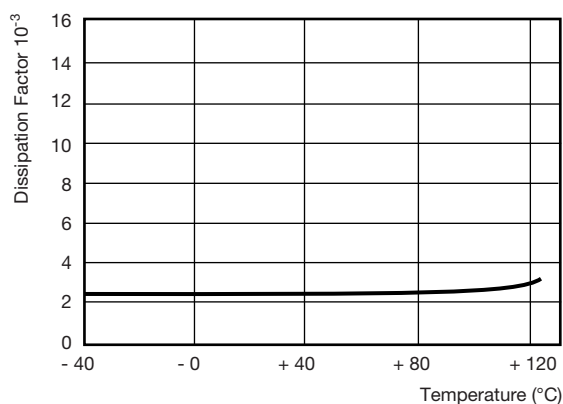


Capacitance vs. Temperature

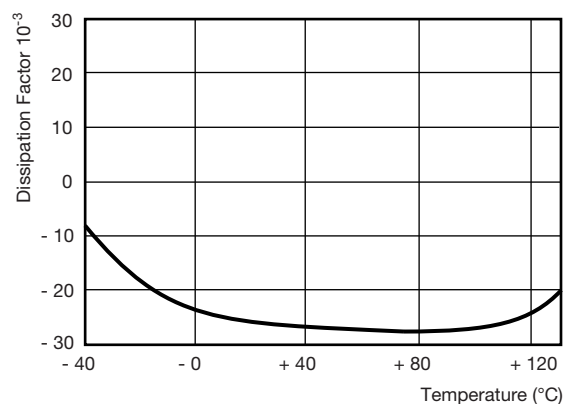
**CERAMIC DIELECTRIC. N2200 (R3L)**



Capacitance vs. Temperature



Dissipation Factor vs. Temperature



Dissipation Factor vs. Temperature

**RELATED DOCUMENTS**

General Information

[www.vishay.com/doc?22001](http://www.vishay.com/doc?22001)



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