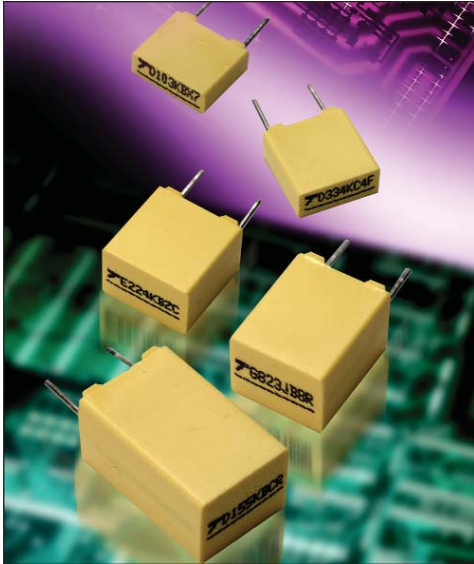


# BH 01/02/07/06/05:

## Radial Leads (Lead Free Product)

### CPM-N----- pitch = 5.08mm (0.200")



### GENERAL DESCRIPTION

Dielectric: Metallized polyester film (Polyethylene terephthalate)  
 Stacked-film  
 Leads: Radial tin - plated wire  
 Protection: Plastic case (UL 94: V-O) / Epoxy Resin  
 Marking: Logo  
     DC Normal Voltage  
     Nominal Capacitance  
     Tolerance (EIA)  
     Batch Code Number  
 Example: T D474KC8L  
 Delivery Mode: Bulk  
                   Taped (reel or ammpack)

### STANDARDIZATION

**Generic specifications:**  
 CEI 384-1/CECC 30000/UTE 83100  
**Sectional specifications:**  
 CEI 384-2/CECC 30400/UTE 83151  
**On the LNZ List:**  
 Complies with type CPM-N  
 RAQ2 production, equivalent AQAP-4 of NATO

### APPLICATIONS

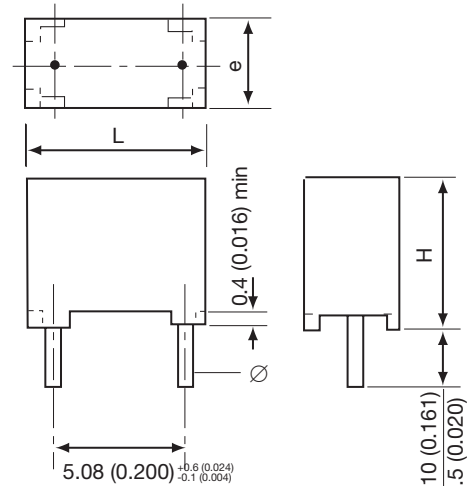
- Supply decoupling
- Filter
- Integrators
- Treatment of analog signals
- Rejection of line perturbations, etc.

Specifically designed of working in severe environmental conditions such as automotive applications: engine control, multiplexing, system, etc.

### DIMENSIONS

millimeters (inches)

| Case | L max       | H max        | e max       | ø ± 0.02    |
|------|-------------|--------------|-------------|-------------|
| 01   | 7.5 (0.295) | 6.5 (0.256)  | 2.5 (0.098) | 0.5 (0.020) |
| 02   | 7.5 (0.295) | 8.0 (0.315)  | 3.2 (0.126) | 0.5 (0.020) |
| 05   | 7.5 (0.295) | 12.0 (0.472) | 6.0 (0.236) | 0.5 (0.020) |
| 06   | 7.5 (0.295) | 9.6 (0.378)  | 6.0 (0.236) | 0.5 (0.020) |
| 07   | 7.5 (0.295) | 8.0 (0.315)  | 5.0 (0.197) | 0.5 (0.020) |



\*L dimension measured 3mm above base of case

### HOW TO ORDER

**BH01**  
Type

**4**  
Class

**D**  
Voltage

**0104**  
Capacitance

**K**  
Tolerance

**--**  
Suffix



# BH 01/02/07/06/05:

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## PERFORMANCE CHARACTERISTICS

|                    |   |
|--------------------|---|
| Climatic Category  | 55/125/56 Performance Class 2   |
| Capacitance Range  | $C_R$ 1nF to 2.2mF (E12)  |
| Tolerance on $C_R$ | $\pm 5\%$ ; $\pm 10\%$<br>(other values on request)                             |
| Nominal Voltages   | VR_ 63/100/250/400V<br>VR~ 40/63/160/200V                                       |
| Category Voltage   | $V_C = 0.8V_{R-}$ at 100°C & $0.5V_{R-}$ at 125°C                               |
| Test Voltage       | $V_e = 1.6V_{R-}/2s$ at 25°C  |
| Life Test          | Delta C/C $\leq 5\%$ after 125°C/1000h/0.5V <sub>R-</sub>                       |
| Thermal Shock      | -55/+125°C/time cycle 1hr/500 cycles delta C/C $\leq 10\%$ D.F. 1kHz $\leq 1\%$ |
| Humidity Test      | 85°C/85% HR/1000 h delta C/C $\leq 10\%$  |

- Tangent of Loss Angle: D.F.

| Measurement Frequency | Capacitance       | DF: Performance Category 2 |
|-----------------------|-------------------|----------------------------|
| 1kHz                  | $C_R \leq 1\mu F$ | $\leq 1.0\%$               |
| 100 Hz                | $C_R > 1\mu F$    | $\leq 1.0\%$               |

- Insulation Resistance: IR

| Measuring Points             | $C_R \leq 0.33\mu F$ |                 | $C_R > 0.33\mu F$        |                 |
|------------------------------|----------------------|-----------------|--------------------------|-----------------|
|                              | IR min (GΩ)          |                 | IR * $C_R$ min (MΩ * μF) |                 |
|                              | Performance Class 2  |                 | Performance Class 2      |                 |
| Between Terminals            | $V_{R-} \leq 100V$   | $V_{R-} > 100V$ | $V_{R-} \leq 100V$       | $V_{R-} > 100V$ |
|                              | 3.75                 | 7.5             | 1.25                     | 2.5             |
| Between Terminals and Ground | - 30,000 Ω           |                 |                          |                 |

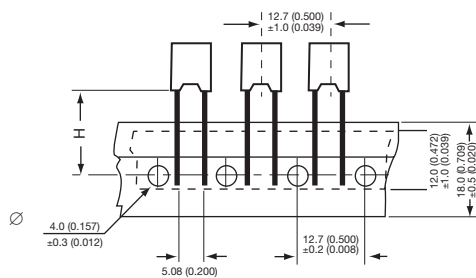
- Max voltage gradient

| $V_{R-}$        | 63 | 100 | 250 | 400 |
|-----------------|----|-----|-----|-----|
| $(dv/dt)_R$ max | 38 | 40  | 110 | 270 |

## PACKAGING

millimeters (inches)

|   | Panasert                                | Avisert                                  |
|---|---|--|
| H | $16.5 \pm 0.30$<br>( $0.65 \pm 0.012$ ) | $19.5 \pm 0.50$<br>( $0.768 \pm 0.020$ ) |



Thermoadhesive tape ▲

(Other sizes according to standard CEI : 286-2)  
Dimensions: millimeters (inches)

| Case     | Quantity    |            |             |            |          |                    |
|----------|-------------|------------|-------------|------------|----------|--------------------|
|          | Reel        |            | Ampopack    |            | Bulk     |                    |
| Suffix x | DB panasert | DD avisert | DA panasert | DC avisert | USA Std. | Europe / Asia Std. |
| 01       | 2500        |            | 2500        |            | 1000     | 5000               |
| 02       | 1800        |            | 2000        |            | 1000     | 3800               |
| 07       | 1200        |            | 1250        |            | 1000     | 2500               |
| 06       | 900         |            | 1100        |            | 1000     | 1500               |
| 05       | 900         |            | 1100        |            | 1000     | 1500               |



# BH 01/02/07/06/05:

## Radial Leads (Lead Free Product)

### CPM-N----- pitch = 5.08mm (0.200")



#### CAPACITANCE VALUES ( $C_R$ ) and NOMINAL VOLTAGES ( $V_R$ )

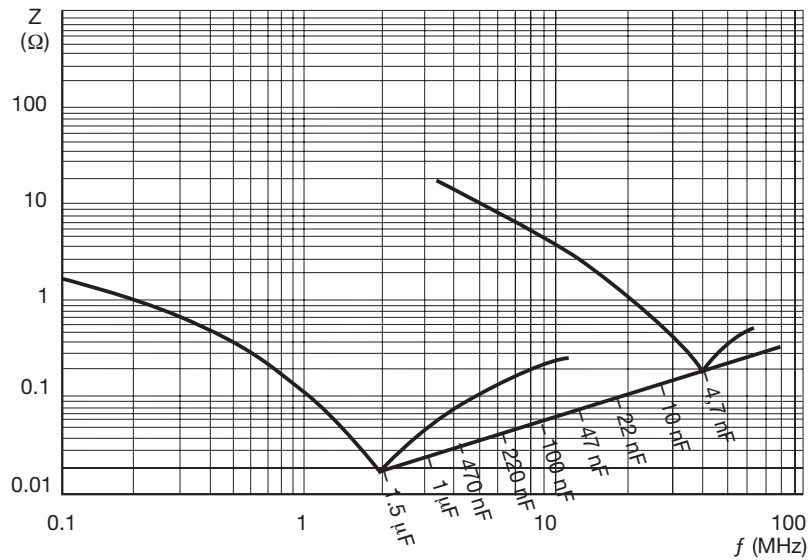
| Capacitance Range ( $C_R$ ) | Reference               |                          |                           |                           |
|-----------------------------|-------------------------|--------------------------|---------------------------|---------------------------|
|                             | BH                      |                          |                           |                           |
|                             | $V_{R+} / V_{R-}$       |                          |                           |                           |
|                             | 63/40 (voltage code: D) | 100/63 (voltage code: E) | 250/160 (voltage code: G) | 400/200 (voltage code: I) |
| 1,000 pF                    | BH01                    | BH01                     | BH01                      | BH01                      |
| 1,200                       | BH01                    | BH01                     | BH01                      | BH01                      |
| 1,500                       | BH01                    | BH01                     | BH01                      | BH01                      |
| 1,800                       | BH01                    | BH01                     | BH01                      | BH01                      |
| 2,200 pF                    | BH01                    | BH01                     | BH01                      | BH01                      |
| 2,700                       | BH01                    | BH01                     | BH01                      | BH01                      |
| 3,300                       | BH01                    | BH01                     | BH01                      | BH01                      |
| 3,900                       | BH01                    | BH01                     | BH01                      | BH01                      |
| 4,700 pF                    | BH01                    | BH01                     | BH01                      | BH01                      |
| 5,600                       | BH01                    | BH01                     | BH01                      | BH02                      |
| 6,800                       | BH01                    | BH01                     | BH01                      | BH02                      |
| 8,200                       | BH01                    | BH01                     | BH01                      | BH07                      |
| 10,000 pF                   | BH01                    | BH01                     | BH01                      | BH07                      |
| 12,000                      | BH01                    | BH01                     | BH01                      | BH07                      |
| 15,000                      | BH01                    | BH01                     | BH01                      | BH07                      |
| 18,000                      | BH01                    | BH01                     | BH01                      | BH06                      |
| 22,000                      | BH01                    | BH01                     | BH02                      | BH06                      |
| 27,000                      | BH01                    | BH01                     | BH02                      | BH06                      |
| 33,000                      | BH01                    | BH01                     | BH02                      | BH06                      |
| 39,000                      | BH01                    | BH01                     | BH07                      | BH05                      |
| 47,000 pF                   | BH01                    | BH01                     | BH07                      | BH05                      |
| 56,000                      | BH01                    | BH01                     | BH07                      |                           |
| 68,000                      | BH01                    | BH01                     | BH07                      |                           |
| 82,000                      | BH01                    | BH01                     | BH06                      |                           |
| 100 nF                      | BH01                    | BH01                     | BH06                      |                           |
| 120                         | BH01                    | BH01                     | BH05                      |                           |
| 150                         | BH01                    | BH01                     | BH05                      |                           |
| 180                         | BH01                    | BH02                     |                           |                           |
| 220 nF                      | BH01                    | BH02                     |                           |                           |
| 270                         | BH02                    | BH07                     |                           |                           |
| 330                         | BH02                    | BH07                     |                           |                           |
| 390                         | BH07                    | BH07                     |                           |                           |
| 470 nF                      | BH07                    | BH05                     |                           |                           |
| 560                         | BH07                    | BH05                     |                           |                           |
| 680                         | BH07                    | BH05                     |                           |                           |
| 820                         | BH07                    | BH05                     |                           |                           |
| 1 $\mu$ F                   | BH07                    | BH05                     |                           |                           |
| 1.5 $\mu$ F                 | BH05                    |                          |                           |                           |
| 2.2 $\mu$ F                 | BH05**                  |                          |                           |                           |

\*\*Upon request & only available 50 V ( $V_R$ )



## CHARACTERISTICS CURVES

Influence of the frequency on the impedance (room temperature).



Nominal RMS voltage vs. frequency (room temperature) allowing a  $10^\circ\text{C}$  increase of the external temperature of the box.

