

Disk Ceramic Capacitors with Lead

Safety Standard Approved CS Series

BASIC INSULATION TYPE Temperature range: -25 to $+125^{\circ}\text{C}$

CLASS 2 HIGH DIELECTRIC

FEATURES

- Smaller than conventional capacitors.
- Flame-resistant reinforced outer insulation prevents fires, electrical shock, and other potential hazards.
- Compliant with the safety standards of 11 countries (conforms to European standards in accordance with IEC Pub. 384-14 Version 2).

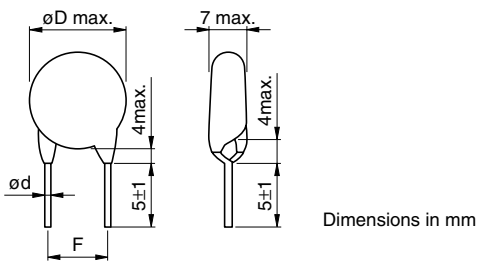
MARKINGS

| Item | | Marking examples | | | | | |
|---|-----------------------|------------------|-------------------|-----------------|-----------------|-------------|----------------|
| 1. Series | CS | Front | Back | | | | |
| 2. Nominal capacitance | 222(2200pF) | | | | | | |
| 3. Capacitance tolerance | M($\pm 20\%$) | | | | | | |
| 4. Rated voltage Eac | 250V \sim (AC.250V) | | | | | | |
| 5. Sub-class of safety performance | X1Y2 | | | | | | |
| 6. TDK's logogram | | | | | | | |
| 7. Date code | 64 (1996.4)* | | | | | | |
| 8. Regulatory body safety standards compliance markings | | | | | | | |
| BSI (U.K.) | BS415 | | SEV (Switzerland) | TJ508 | FIMKO (Finland) | | NEMKO (Norway) |
| SEMKO (Sweden) | | UL (U.S.A.) | | SAA (Australia) | — | IMQ (Italy) | |
| VDE (Germany) | | CSA (Canada) | | DEMKO (Denmark) | | | |

(Marking position of the monogram is reference.)

* Year and month of production: last digit of year + month denoted by 1, 2, 3, 4, 5, 6, 7, 8, 9, O (October), N (November), or D (December).

SHAPES AND DIMENSIONS



• For more information about products with other capacitance or other data, please contact us.

• All specifications are subject to change without notice.

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INTERNATIONALLY CERTIFIED STATUS
IEC60384-14 2nd. ed. EN132400 Approved

| Safety standard | Standard No. of IEC | Standard No. | Temperature characteristics | Insulation sub-class | Rated voltage Eac(V) | Approval report No. | | |
|-----------------|---------------------------------------|---|-----------------------------|----------------------|----------------------|---------------------|---------------|------------|
| | | | | | | Japan | Taiwan | Xiamen |
| BSI | IEC 60065 IEC 60384-14 2nd. ed. | BS EN 60065:1998 (BS415:1998) BS EN132400:1995 (EN132400:1994) | B, E, F | X1, Y2 | 250 | 226494 | 226494 | 226494 |
| VDE | IEC 60384-14 2nd. ed. | EN132400 | B, E, F | X1, Y2 | 250 | 138559 | 138560 | 12006 |
| SEV | IEC 60384-14 2nd. ed. | EN132400 | B, E, F | X1, Y2 | 250 | 01.15.05 | 01.15.05 | 99.7 70564 |
| SEMKO | IEC 60384-14 2nd. ed. | EN132400 | B, E, F | X1, Y2 | 250 | 0139186/01-02 | 0139186/01-02 | 9945094 |
| NEMKO | IEC 60384-14 2nd. ed. | EN132400 | B, E, F | X1, Y2 | 250 | P01101988 | P01101988 | P99102682 |
| DEMKO | IEC 60384-14 2nd. ed. | EN132400 | B, E, F | X1, Y2 | 250 | 310966-01 | 310966-01 | 99-04087 |
| FIMKO | IEC 60384-14 2nd. ed. | EN132400 | B, E, F | X1, Y2 | 250 | FI 17416 | FI 17416 | 14237 |
| IMQ | IEC 60384-14 2nd. ed. | EN132400 | B, E, F | X1, Y2 | 250 | V3692 | V3692 | V3691 |
| SAA | IEC 60065 | AS3250 | B, E, F | — | 400 | 6268 | 6268 | 6268 |
| UL | — | UL 1414 | B, E, F | (X, Y) | 250 | E37861 | E37861 | E37861 |
| CSA | — | C22.2 No.0 & No.1 | B, E, F | (X, Y) | 250 | LR35801 | LR65972 | 201723 |

• Certificate numbers shall be changed owing to the revisions of the related standards.

CAPACITANCE AND DIMENSIONS

| Part No. | Capacitance temperature characteristics | Capacitance (pF) | Capacitance tolerance | Dimensions (mm) | | | |
|------------------|---|------------------|-----------------------|-----------------|---------|----------|----------|
| | | | | øD max. | F | ød | |
| CS70-B2GA101KYNS | B(±10%) | 100 | K(±10%) | 7 | 7.5±1.5 | 0.6±0.05 | |
| CS70-B2GA151KYNS | | 150 | K(±10%) | 7 | 7.5±1.5 | 0.6±0.05 | |
| CS70-B2GA221KYNS | | 220 | K(±10%) | 7 | 7.5±1.5 | 0.6±0.05 | |
| CS85-B2GA331KYNS | | 330 | K(±10%) | 8.5 | 7.5±1.5 | 0.6±0.05 | |
| CS85-B2GA471KYNS | | 470 | K(±10%) | 8.5 | 7.5±1.5 | 0.6±0.05 | |
| CS95-B2GA681KYNS | | 680 | K(±10%) | 9.5 | 7.5±1.5 | 0.6±0.05 | |
| CS10-B2GA102KYNS | | 1,000 | K(±10%) | 10 | 7.5±1.5 | 0.6±0.05 | |
| CS80-E2GA102MYNS | | 1,000 | M(±20%) | 8 | 7.5±1.5 | 0.6±0.05 | |
| CS90-E2GA152MYNS | | 1,500 | M(±20%) | 9 | 7.5±1.5 | 0.6±0.05 | |
| CS11-E2GA222MYNS | | 2,200 | M(±20%) | 10.5 | 7.5±1.5 | 0.6±0.05 | |
| CS13-E2GA332MYNS | E(+20, -55%) | 3,300 | M(±20%) | 12.5 | 7.5±1.5 | 0.6±0.05 | |
| CS14-E2GA392MYNS | | 3,900 | M(±20%) | 13.5 | 7.5±1.5 | 0.6±0.05 | |
| CS15-E2GA472MYNS | | 4,700 | M(±20%) | 14.5 | 7.5±1.5 | 0.6±0.05 | |
| CS12-F2GA472MYNS | | F(+30, -80%) | 4,700 | M(±20%) | 12 | 7.5±1.5 | 0.6±0.05 |
| CS17-F2GA103MYNS | | | 1,0000 | M(±20%) | 16.5 | 10±2 | 0.6±0.05 |

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