

# 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).

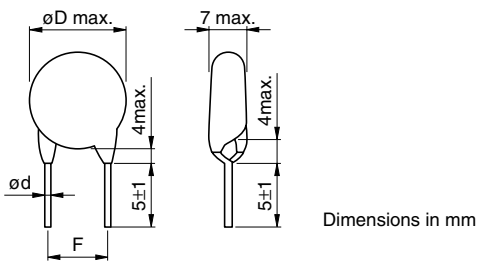
### MARKINGS

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)	FI	NEMKO (Norway)
SEMKO (Sweden)	S	UL (U.S.A.)	RU	SAA (Australia)	—	IMQ (Italy)	
VDE (Germany)	D E	CSA (Canada)	SF	DEMKO (Denmark)	D		

(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.

**BASIC INSULATION TYPE Temperature range: -25 to +125°C**  
**CLASS 2 HIGH DIELECTRIC**

**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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