CCDB SERIES: High K

INTRODUCTION

Single layer metalized ceramic disc with resin coating (wax impregnated) below 1KV or epoxy coated 1KV up.

Range of values extends to much higher values than CBDA

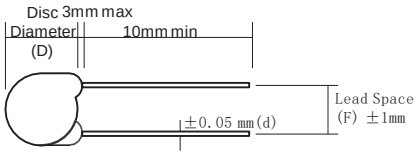
APPLICATION

- By−Pass & Coupling
- Frequency Discriminating Circuits where Q and capacitance stability is not of major importance.
- Filtering, Blocking & Timing

PART NUMBER EXAMPLE

CCDB E 103 M 2H A57 B

- Series
- Temperature Coefficient
- Capacitance Code
- Tolerance Code
- Packing Code
- Lead Code
- Voltage Code



DIMENSIONS (mm) & CAPACITANCE RANGE (Reference)

(F:Standard Lead Spacing. Other lead spacing may be available upon request.)

Thickness	4.0 mm max.								5.0		6.5		8.0		14.0
Voltage	50V 1H/100V 2A			500V 2H/630V 2J			1KV 3A		2KV 3D		3KV 3U		5KV 3H/6KV 3I		10KV 4A
Cap (pf) Code	Y5E Y5F Y5P Z5F	Z5U Y5U	Z5V	Y5E Y5F Y5P Z5F	Z5U Y5U	Z5V	Y5E Y5F Y5P Z5F	Z5U Y5U	Y5E Y5F Y5P Z5F	Z5U	Y5E Y5F Y5P Z5F	Z5U	Y5P	Z5U	Y5P
82 820															
100 101	D=5.5 F=2.5			D=6 F=5.0			D=6 F=6.35		D=6 F=6.35		D=6 F=6.35		D=8 F=6.35		D=9 F=10
120 121															
180 181															
200 201															D=13 F=12.7
220 221															
240 241															
300 301															
330 331															
390 391															D=15 F=12.7
470 471													D=10 F=10		
500 501									D=7 F=6.35		D=7 F=6.35				
560 561				D=7.5 F=6.35			D=8 F=6.35								
680 681													D=14 F=12.7		
750 751		D=5 F=2.5			D=6 F=5.0			D=7 F=6.35							
820 821									D=8 F=6.35	D=6 F=6.35	D=10 F=6.35	D=6 F=6.35		D=12 F=10	
1000 102															
1200 122															
1500 152	D=6.5 F=5.0			D=8.5 F=6.35			D=10 F=6.35		D=10 F=10	D=7 F=6.35		D=7 F=6.35			
1800 182											D=15 F=10				
2000 202					D=8.5 F=6.35			D=9 F=6.35							
2200 222															
2500 252	D=7.5 F=5.0	D=6 F=5.0				D=6.5 F=5.0			D=13 F=10	D=8 F=6.35		D=10 F=6.35		D=16 F=12.7	
2700 272															
3000 302				D=10 F=6.35			D=11 F=10								
3300 332			D=5.5 F=2.5		D=10 F=6.35	D=8 F=6.35				D=10 F=6.35		D=15 F=10			
3900 392															
4700 472	D=10 F=5.0			D=14 F=10			D=15 F=10	D=10 F=10	D=15 F=10						
5600 562															
6800 682		D=8 F=5.0	D=7 F=5.0	D=15 F=10	D=12 F=10	D=10.5 F=6.35	D=18 F=10	D=14 F=10		D=14 F=10					
7500 752	D=11.5 F=5.0														
8200 822						D=12 F=10									
10000 103															
15000 153	D=15 F=5.0	D=10 F=5.0			D=17 F=10			D=18 F=10							
20000 203			D=9.5 F=5.0			D=13 F=10									
22000 223															
33000 333	D=17 F=10	D=12.5			D=23 F=10			D=25 F=10							
47000 473		D=16 F=10	D=11			D=15 F=10									
56000 563			D=13												
100000 104		D=20	D=17			D=23									

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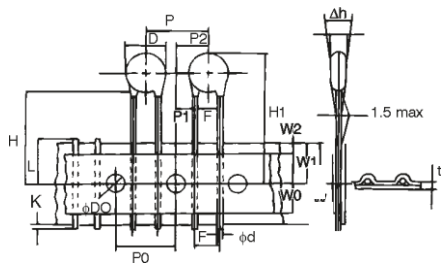
ELECTRICAL CHARACTERISTICS

Technical Data	Condition	Specification
Capacitance	Measured at 1KHz 1.0 ~ 5.0 VRMS, 25°C	80pF ~ 0.1μF
Operating Temperature	X7R	-55°C ~ +125°C
	Y5E, Y5P	-30°C ~ +85°C
	Z5U, Z5V	-10°C ~ +85°C
Dissipation Factor (tan S)	X7R, Y5E, Y5P, Z5U	≤ 0.025
	Z5V	< 0.05
Insulation Resistance	Rated Voltage at 25°C ± >°C and 70% R.H. max	>10GΩ or 200MΩ Farad, whichever is less
Encapsulation	Standard 1KV and higher	Phenolic Wax Epoxy Coating
Solderability of Leads	at least 75% is covered	Solder Temperature 250°C ± 5°C Dipping: 3±0.5 sec (Flur shall be used)

TEMPERATURE COEFFICIENT CODE

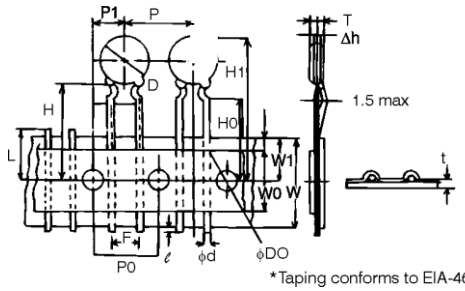
Temperature Characteristics		
Code	EIA Code	Characteristics
M	Z5U	+22 to -56% +10 °C to +85°C
V	Z5V	+22 to -82% +10 °C to +85°C
G	Y5E	±4.7% -30 °C to+85°C
P	Y5P	±10% -30 °C to+85°C
E	Y5U	+22 to -56% -30 °C to +85°C

RADIAL STRAIGHT-LEAD ON TAPE (S56 LEAD CODE)



RADIAL KINK-IN ON TAPE (K56 LEAD CODE)

*Most Popular



*Taping conforms to EIA-468

Code	Dimensions
D	11.0 max
d	0.6 ±0.05
P	12.7 ±1.0
P0	12.7 ±0.3
P1	3.85 ±0.7
P2	6.35 ±1.3
F	5.0 +0.8 -0.2
h	0 ±2.0
W	18.0 +1.0 -0.5
W1	9.0 +0.75 -0.5
W2	3.0 max
H	18.0 +3.0 -0
H0	16.0 ±0.5
H1	32.25 max
K	1.0 max
D0	4.0 ±0.2
t	0.7 ±0.2
L	11.0 max

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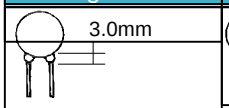
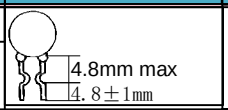
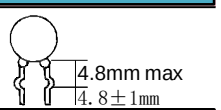
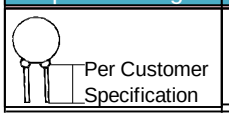
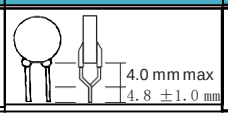
TOLERANCE CODE

Code	Tolerance
C	±0.25pF
D	±0.5pF
F	±1%
G	±2%
J	±5%
K	±10%
M	±20%

VOLTAGE CODE EXAMPLE

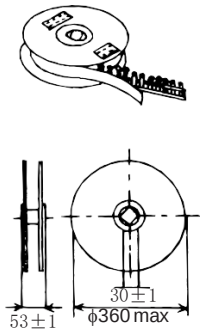
Code	1H	2H	3H	4A
WVDC	50V	500V	5KV	10KV

LEAD CODES FOR BULK PACK (CERAMIC DISC ONLY)

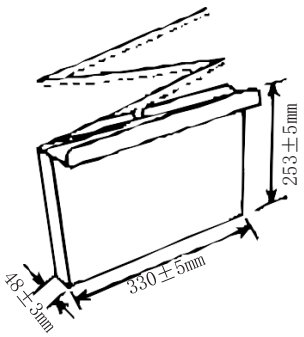
Lead Type		
A-Straight	**C**-Kink In	**D**-Kink Out
		
F-Special Length	**Y**-Y Formed	**S** & **K**-Taped
		See taping specifications above.

Lead Spacing (±1.00) in mm		Wire dia. (±0.05) inmm	
Code	F	Code	d
2	2.5	4	0.48
5	5	6	0.6
6	6.35	7	0.65
7	7.5	8	0.8
9	10.0	9	1.0
0	12.7		
A	15.0		

REEL PACK (R SUFFIX)



AMMO PACK (A SUFFIX)



HOW TO MAKE THE LEAD CODE FOR CERAMIC DISC (FOR BULK PACK ONLY - B SUFFIX)

A 6 7 B

- B — Bulk
- 7 — Wire Dia.
- 6 — Lead Spacing
- A — Lead Type