#### High Voltage Ceramic Capacitors (250V-6.3kV)

(Part Number) DE | B | B3 | 3A | 102 | K | N2 | A 6 6 6 8 9

#### Product ID

Product ID	
DE	High Voltage Ceramic Capacitors (250V - 6.3kV) / Safety Standard Certified Ceramic Capacitors

#### 2 Series Category

Code	Outline	Contents					
Α		Class 1 (char. SL) DC1-3.15kV Rated					
В	High Voltage	Class 2 DC1-3.15kV Rated					
С		Class 1, 2 DC6.3kV Rated					
н		High Temperature Guaranteed, Low-dissipation Factor (char. R, C)					
S		High Temperature Guaranteed, Low-dissipation Factor (char. D)					
F		LCD Backlight Inverter Circuit/6.3kVp-					

First three digits ( Product ID and Series Category) express "Series

#### **3**Temperature Characteristics

Code	Temperature Characteristics	Cap. Change or Temp. Coeff.	Temperature Range				
В3	В	±10%					
E3	E	+20%,-55%	–25 to +85℃				
F3	F	+30%,-80%					
C3	С	±20%	–25 to +85℃				
		+15%,-30%	+85 to +125℃				
R3	R	±15%	–25 to +85℃				
	K	+15%,-30%	+85 to +125℃				
D3	D	+20%,-30%	-25 to +125℃				
1X	SL	+350 to −1000ppm/°C	+20 to +85℃				
2C	СН	0±60ppm/℃	+20 to +85℃				

#### 4 Rated Voltage

Code	Rated Voltage
2E	DC250V
2H	DC500V
3A	DC1kV
3D	DC2kV
3F	DC3.15kV
3J	DC6.3kV
LH	6.3kVp-p

#### 6 Capacitance

Expressed by three figures. The unit is pico-farad (pF). The first and second figures are significant digits, and the third figure expresses the number of zeros which follow the two numbers.

#### **6**Capacitance Tolerance

Code	Capacitance Tolerance					
С	±0.25pF					
D	±0.5pF					
J	±5%					
K	±10%					
Z	+80%, -20%					

#### Lead Style

	Lead		Dimensions(mm)		
Code	Style	Lead Spacing	Lead Diameter	Pitch of Components	
A2	Vertical	5			
А3	Crimp	7.5	ø0.6±0.05	_	
A4	Long	10			
B2/J2	Vertical	5			
B3/J3	Crimp	7.5	ø0.6±0.05	_	
B4	Short	10			
C1		5	ø0.5±0.05		
С3	Straight	7.5	ø0.6±0.05	_	
C4	Long	10	ØU.6±U.U5		
CD		7.5	ø0.5±0.05		
D1		5	ø0.5±0.05		
D3	Straight Short	7.5	ø0.6±0.05	_	
DD	Onort	7.5	ø0.5±0.05		
N2	Vertical	5		12.7	
N3	Crimp	7.5	ø0.6±0.05	15	
N7	Taping	7.5		30	
P2	Straight	5	~0.4±0.0F	12.7	
P3	Taping	7.5	ø0.6±0.05	15	

#### 8 Packaging

Code	Packaging
Α	Ammo Pack
В	Bulk

#### Individual Specification Code

In case part number cannot be identified without "Individual Specification", it is added at the end of part number. Expressed by three-digit alphanumerics.

 <sup>♠</sup>Note
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 This PDF catalog has only typical specifications because there is no space for detailed specifications. Therefore, please approve our product specifications or transact the approval sheet for product specifications before ordering.

Part Number	тс	Rated Voltage (Vdc)	Capacitance	Dimensions LxW (mm)	Dimension T (mm)	Lead Space F (mm)	Lead Style Code Bulk	Lead Style Code Taping (1)	Lead Style Code Taping (2)
RDEF11H103Z0□□C01□	F	50	10000pF +80/-20%	5.0 x 3.5	2.5	2.5	P1	S1	-
RDEF11H103Z0□□C01□	F	50	10000pF +80/-20%	4.0 x 3.5	2.5	5.0	K1	M1	-
RDEF11H223Z0□□C01□	F	50	22000pF +80/-20%	5.0 x 3.5	2.5	2.5	P1	S1	-
RDEF11H223Z0□□C01□	F	50	22000pF +80/-20%	4.0 x 3.5	2.5	5.0	K1	M1	-
RDEF11H473Z0□□C01□	F	50	47000pF +80/-20%	5.0 x 3.5	2.5	2.5	P1	S1	-
RDEF11H473Z0□□C01□	F	50	47000pF +80/-20%	4.0 x 3.5	2.5	5.0	K1	M1	-
RDEF11H104Z0□□C01□	F	50	0.10μF +80/-20%	5.0 x 3.5	2.5	2.5	P1	S1	-
RDEF11H104Z0□□C01□	F	50	0.10μF +80/-20%	4.0 x 3.5	2.5	5.0	K1	M1	-
RDEF51H103Z0□□C03□	Y5V	50	10000pF +80/-20%	5.0 x 3.5	2.5	2.5	P1	S1	-
RDEF51H103Z0□□C03□	Y5V	50	10000pF +80/-20%	4.0 x 3.5	2.5	5.0	K1	M1	-
RDEF51H223Z0□□C03□	Y5V	50	22000pF +80/-20%	5.0 x 3.5	2.5	2.5	P1	S1	-
RDEF51H223Z0□□C03□	Y5V	50	22000pF +80/-20%	4.0 x 3.5	2.5	5.0	K1	M1	-
RDEF51H473Z0□□C03□	Y5V	50	47000pF +80/-20%	5.0 x 3.5	2.5	2.5	P1	S1	-
RDEF51H473Z0□□C03□	Y5V	50	47000pF +80/-20%	4.0 x 3.5	2.5	5.0	K1	M1	-
RDEF51H104Z0□□C03□	Y5V	50	0.10μF +80/-20%	5.0 x 3.5	2.5	2.5	P1	S1	-
RDEF51H104Z0□□C03□	Y5V	50	0.10μF +80/-20%	4.0 x 3.5	2.5	5.0	K1	M1	-

Two blank columns are filled with the lead style code. Please refer to the 3 columns on the right for the appropriate code.

The last blank column is filled with the packaging code. (B: bulk, A: ammo pack)

Operating Temperature Range: -25 to +85deg. (F Char.), -30 to +85deg. (Y5V Char.)

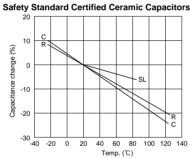
## **Disc Ceramic Capacitors**

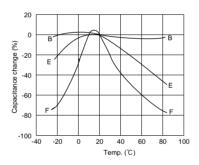
#### Disc Ceramic Capacitors

D i - ti	C	Rated	Temp.								Capacita	ance R	ange	(pF)					
Description	Series	Voltage	Char.	135	10	30	50 10	0 30	0 500	1000	3000	5000	1000	00 300	00 500	00 100000	300000	500	000
			SL		1	1	1	1		5 to 5	60		1	 	 	 	 		 
	DES		D	111	1	1					1	<u> </u> 10	00 to 4	1700	1	I I	1		I I
	DEB	D0050\/ /	В		į	į	i i						100 to	6800	į	i	į		i
High Voltage Ceramic Capacitors  DEC DEA DEH	DC250V to 6.3kV R	R		į	İ				-	1		1		10000	) :	i i		! !	
		C	111	- 1	İ	1 1	i		-		330	) to 47	700 ¦	1	1	1		I I	
			E	1 1 1	1	1	1 1	1	1					1000 t	o 1000	0 ¦	I I		I I
		F	F	1 1 1	I I	I I		1 1	1 1					1000 t	o 1000	0 ¦	1 1		I I
	DEF	C 214/m m	СН			2 to 1	0	1	I I	1	1	1	1	1	1	- 1	I I		I I
	DEF	6.3kVp-p	SL	1 1 1			] 10 t	47	1	 	1	 	1	1	1	!	 		I I
Safety			SL	111		i	10	to 68	i	i	-	1	1		1				 
Standard	KY KH		В	1 1 1		I	_ ``	10 00	I	100	to 680	1 1	1	1	1 1	1	1 1		I I
Certified	KX	AC250V(r.m.s.)	E	1 1 1	1	I I	1 1	i	i			10	) ) ) )	4700	1 1	 	 		I I
Ceramic	DEJ		F	111	1	1		!	1	- !-	i	,10		1	o 1000	0 :	1		I I
				1 1 1	- 1	1			i	- 1	1	i		55 (		-	1		i I

#### Typical Examples of Temperature Characteristics

#### • High Voltage Ceramic Capacitors/



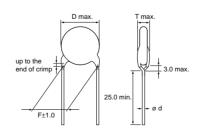


## High Voltage Ceramic Capacitors (250V-6.3kV)

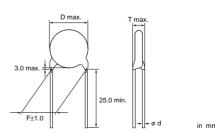
#### DEB Series

#### Vertical Crimp Long type (Lead Code: A\*)





#### Straight Long type (Lead Code: C\*)



Operating Temp. Range -25°C to +85°C

#### ■Part number configuration (Please see page 24 for details)

DE | B | B3 | 3A | 102 | K | N2 | A

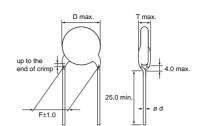
Part Number	DC Rated Volt.	Temp. Char.	<b>5</b> Capacitano	ce Range (pF)		Code and ging Code	Dimensions (mm)			
	(V)	В	E	F	Bulk	Taping	D	F	Т	ød
		100 to 330	-	_			4.5			0.540.051)
Char. B:		470	1000	_	C1B	P2A	5	1		0.5±0.05 <sup>1)</sup>
DEBB33AK		680 , 1000	-	2200			6			
		_	2200	4700			7	5		
Char. E :	1k	1500	_	_	A2B	N2A	8	1		
		2200	4700	_			9	1	4	0.6±0.05
9 00		3300	_	10000			10	1		0.0±0.03
Char. F : DEBF33A		4700	_	_			12		1	
		_	10000	_	A3B	N3A	13	7.5		
		6800	_	_		N7A	15	1		
		100 to 220	_	_			4.5			
Char. B : DEBB33D K 0 3 Char. E :		330	_	1000	C1B	P2A	5	-		0.5±0.05 <sup>1)</sup>
		470	1000	_			6			0.6±0.05
		680	_	2200			7			
	2k	1000	2200	_	A2B		8	5		
DEBE33D□□□Z□□□		1500	_	4700		N2A	9		5	
6 00		2200	_	_			10			
Char. F:		_	4700	_			11			
		3300	_	10000		N3A	12	7.5		
<b>6 0 3</b>		4700	_	_	A3B		15			
		_	10000	_		N7A	16			
		100 to 220	_	_	CDB		5			0.5±0.05 <sup>1)</sup>
		330	_	_		P3A	6	1		
Char. B :		470	1000	_	СЗВ		7	1		
DEBB33F		680	_	_			8	1		
	3.15k	1000	_	_			9	7.5	6	0.6±0.05
Char. E:		_	2200	_		N3A	10			0.0±0.00
		1500	_	_	A3B		11	1		
<b>3 3 3</b>		2200	4700	_			13			
		3300	_	_		N7A	15	1		
Capacitance Tolerance		K	Z	Z		1	_	1		1
Capacitance Step		E6	E3	E3			_			

<sup>1)0.6±0.05</sup>mm for Lead Code P2 and P3.

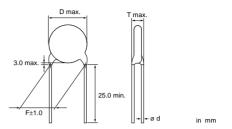
# High Voltage Ceramic Capacitors (250V-6.3kV)

DEC Series

#### Vertical Crimp Long type (Lead Code: A\*)



Straight Long type (Lead Code: C\*)



Operating Temp. Range -25°C to +85°C

#### ●Part number configuration (Please see page 24 for details)

(Ex.)	DE	С	ВЗ	3J	102	K	C4	В	
	0	2	3	4	6	6	0	8	9

	Temp.	DC Rated	Cap.			Dimensio	ons (mm)	
Part Number	Char.	Volt. (V)	(pF)	Cap. Tol.	D	F	Т	ød
DEC1X3J100JA3BMS1			10		7	7.5		
DEC1X3J100JC4BMS1			10		'	10		
DEC1X3J120JA3B			12			7.5		
DEC1X3J120JC4B			12		8	10		
DEC1X3J150JA3B			15		0	7.5		
DEC1X3J150JC4B	]					10		
DEC1X3J180JA3B			18			7.5		
DEC1X3J180JC4B			10			10		
DEC1X3J220JA3B			22			7.5		
DEC1X3J220JC4B				±5%		10		
DEC1X3J270JA3B		6.3k	27		9	7.5		
DEC1X3J270JC4B	SL					10		
DEC1X3J330JA3B	J		33			7.5		
DEC1X3J330JC4B						10		
DEC1X3J390JA3B			39			7.5		
DEC1X3J390JC4B						10		
DEC1X3J470JA3B			47			7.5	7	0.6±0.05
DEC1X3J470JC4B								
DEC1X3J560JC4B			56		10	-		
DEC1X3J680JC4B	_		68		12			
DEC1X3J820JC4B			82		12			
DEC1X3J101JC4B	_		100		13			
DEC1X3J121JC4B	_		120		14			
DEC1X3J151JC4B			150		15			
DECB33J101KC4B	_		100			10		
DECB33J151KC4B			150		9			
DECB33J221KC4B	B		220		,			
DECB33J331KC4B			330	±10%				
DECB33J471KC4B			470		10			
DECB33J681KC4B			680		11			
DECB33J102KC4B			1000		13			
DECE33J102ZC4B			1000	+80 <sub>%</sub> -20	11			
DECE33J222ZC4B	_		2200	-20	15			

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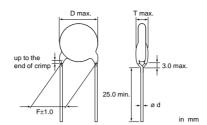
## Capacitors muRata

# High Voltage Ceramic Capacitors (250V-6.3kV)

DES Series



Vertical Crimp Long type (Lead Code: A\*)



Operating Temp. Range -25°C to +125°C

●Part number configuration (Please see page 24 for details)

(Ex.)	DE	s	D3	3A	102	K	N2	Α
		_		4		_		_

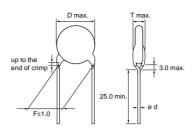
David Nameda au	DC Rated	Cap.	Cap. Tol.	ol. DLead Code and Packaging Code			Dimensions (mm)			
Part Number	Volt. (V)	(pF)	(%)	Bulk	Taping	D	F	Т	ød	
DESD32H101K□□□		100								
DESD32H151K□□□		150								
DESD32H221K□□□		220				6				
DESD32H331K□□□		330				Ü				
DESD32H471K□□□		470		A2B	N2A		5			
DESD32H681K□□□	500	680						4		
DESD32H102K□□□		1000				8				
DESD32H152K□□□		1500				9				
DESD32H222K□□□		2200	±10			10			- 0.6±0.05	
DESD32H332K□□□		3300		АЗВ	N3A	12	7.5			
DESD32H472K□□□		4700			N7A	14	7.5			
DESD33A101K□□□		100	110	0						
DESD33A151K□□□		150				6				
DESD33A221K□□□		220				Ü				
DESD33A331K□□□		330		A2B	N2A		5			
DESD33A471K□□□		470		AZB	NZA	7	5			
DESD33A681K□□□	1k	680				8		4.5		
DESD33A102K□□□		1000				9				
DESD33A152K□□□		1500				10				
DESD33A222K□□□		2200			N3A	12				
DESD33A332K□□□		3300		АЗВ	N7A	14	7.5			
DESD33A472K□□□		4700			N/A	17				

Three blank columns are filled with Lead Code and Packaging Code.

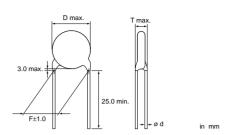
# High Voltage Ceramic Capacitors (250V-6.3kV)

### DEA/DEH Series

Vertical Crimp Long type (Lead Code: A\*)



Straight Long type (Lead Code: C\*)



Operating Temp. Range -25°C to +125°C

Part number configuration (Please see page 24 for details)

(Ex.)	DE	Н	R3	ЗА	102	K	N2	Α
	0	2	6	4	6	6	0	8

	DC	Temp. Char./ Capacitance Range (pF)			<b>7</b> Lead (	Dimensions (mm)				
Part Number	Rated Volt.	SL	R	С	8 Packaging Code		Dillicinsions (iiii			
	(V)	(DEA Series)	(DEH Series)	(DEH Series)	Bulk	Taping	D	F	Т	ød
			220 to 1000				6 7 8			
			1500			N2A				
Char. R : <b>DEHR32E</b> □□□ <b>K</b> □□□	250		2200		A2B			5		
<b>5 7 8</b>	250		3300		AZD	NZA	9	5	4	
			4700				10	-		
			6800 , 10000				12			0.6±0.05
				330 , 470			6	5	4	
				680	A2B		7			
Char. C :	500			1000		N2A	8			
DEHC32HK <b>5 2 9</b>				1500			9	5		
				2200			10			
				3300			12			
				4700	A4B	_	14	10		
		10 to 47			C1B	DOA	<b>P2A</b> 4.5 5			0.5±0.05 <sup>1</sup>
		56 , 68			СІВ	FZA		-	4	0.5±0.05
		82 to 120					6			
Char. SL:		150 , 180	220 to 470				7	5		
DEA1X3A		220	680		A2B	N2A	8	5		
6 08	1k	270	1000		AZD	NZA	9			
Char. R: DEHR33A		330 , 390					10			0.6±0.05
		470	1500				11		4.5 2)	
		560				N3A	12			
			2200		A3B		13	7.5		
			3300			N7A	15	1.3		
			4700			N/A	17			

Continued on the following page.



Capacitors \_\_

#### Continued from the preceding page.

	DC Rated Volt. (V)	Temp. Chai	r./ <b>6</b> Capacitance	Range (pF)		Code and	Dimensions (mm)			
Part Number		SL	R	С	8 Packa	ging Code			1131011	3 (11111)
		(DEA Series)	(DEH Series)	(DEH Series)	Bulk	Taping	D	F	Т	ød
		10 to 33			C1B	P2A	4.5			0.5±0.05
		39			CID	120	5			0.5±0.00
		47 to 68					6			
		82 , 100				N2A	7	5		
		120 , 150			A2B		8	5		
		180			AZB	NZA	9			
		220					10			
		270					11			
Char. SL :			220 , 270		СЗВ	P3A	<b>P3A</b> 7		5	0.6±0.05
DEA1X3DJ <b>5 7 8</b>			330 , 390				8			
0 00			470 , 560				9			
Char. R :	2k		680		АЗВ	N3A N7A	10	7.5		
DEHR33D K C			820				11			
9 00		330	1000 to 1500				12			
		390					13			
		470	1800				14			
		560	2200				15			
			2700				17			
			3300			_	19	10	-	
			3900		A4B		20			
			4700				21			
		10 to 22			CDB		5			0.5±0.05
		27 to 39				P3A	6			
		47, 56	150 to 270		СЗВ		7			
		68, 82	330				8			
		100	390				9			
Char. SL : <b>DEA1X3F</b>		120	470, 560				10			
<b>5 9 3</b>		150, 180	680			N3A	11	7.5		
	3.15k	220	820				12	7.5	6	0.6±0.05
Char. R:			1000		A3B		13			0.010.00
DEHR33F K		270	1200				14			
		330	1500				15			
						N7A				
		390	1800				16			
			2200		A 4D		17	10	-	
Compositornos Talarras			2700		A4B	_	19	10		
Capacitance Tolerance		J	K	K K						
Capacitance Step		E12	E6 (250V to 1kV)							
		E12 (2kV, 3.15kV)								

<sup>1) 0.6±0.05</sup> mm for Lead Code P2 and P3.

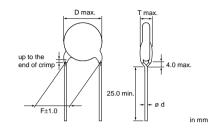
<sup>2) 4</sup>mm for Characteristics SL

# High Voltage Ceramic Capacitors (6.3kVp-p)

DEF Series (LCD Backlight Inverter Circuit)

Vertical Crimp Long type (Lead Code: A\*)





Operating Temp. Range -25°C to +105°C

● Part number configuration (Please see page 24 for details)

(EX.) DE F 1X LH 470 J A3 B

Part Number	Rated Volt.	Cap.	Can Tal	DLead Code and	8 Packaging Code	Dimensions (mm)				
Part Number	(Vp-p)	(pF)	Cap. Tol.	Bulk	Taping	D	F	Т	ød	
DEF2CLH020C□□□		2	±0.25pF							
DEF2CLH030C□□□		3								
DEF2CLH040C□□□		4				7				
DEF2CLH050D□□□		5					- 7.5	6	0.6±0.05	
DEF2CLH060D□□□		6								
DEF2CLH070D□□□		7	±0.5pF			8				
DEF2CLH080D□□□		8								
DEF2CLH090D□□□		9								
DEF2CLH100J□□□	6.3k	10		АЗВ	N3A					
DEF1XLH100J□□□	0.3K	10			NSA					
DEF1XLH120J□□□		12								
DEF1XLH150J□□□		15				7				
DEF1XLH180J□□□		18	±5%							
DEF1XLH220J□□□		22	1370							
DEF1XLH270J□□□		27				8				
DEF1XLH330J□□□		33								
DEF1XLH390J□□□		39	1			9				
DEF1XLH470J□□□		47								