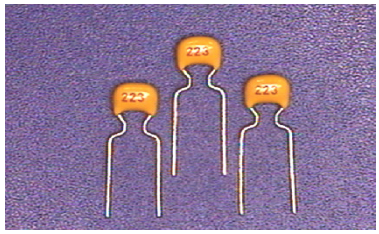
Holy Stone

Radial Dipped Ceramic Capacitors [General Used Capacitors – 6.3V-1KV]

RDC Series



◆ Features

- ❑ Advanced process technology produces thinner layers of ceramic dielectric and offers higher voltage rating and capacitance values
- ❑ Provides good frequency response
- ❑ High reliability
- ❑ RoHS compliant
- ❑ Halogen free

◆ Applications

- ❑ Suitable for Automotive Electronics, Power supplies
- ❑ Inverter and Converter
- ❑ Fuel pump, Water pump, Hybrid engine, Door lock, and Wiper

◆ Summary of Specifications

Operation Temperature	NP0, X7R : -55 ℃ ~ +125 ℃ , X5R : -55 ℃ ~ +85 ℃ , Y5V : -30 ℃ ~ +85 ℃
Rated Voltage	16Vdc to 1KVdc
Temperature Coefficient	NP0 : ≤ ± 30ppm/ ℃ , -55 ℃ ~ +125 ℃ (EIA Class Ⅰ)
	X7R : ≤ ± 15% , -55 ℃ ~ +125 ℃ (EIA Class Ⅱ)
	X5R : ≤ ± 15% , -55 ℃ ~ +85 ℃ (EIA Class Ⅱ)
	Y5V : ≤ +22~ -82% , -30 ℃ ~ +85 ℃ (EIA Class Ⅱ)
Capacitance Range	NP0 : 10pF to 100nF
	X7R : 180pF to 22uF
	X5R : 0.1uF to 22uF
	Y5V : 0.01uF to 2.2uF
Dissipation Factor	Please refer to HEC specification data sheet by request or contact Holy Stone
Insulation Resistance	10GΩ or 500/CΩ whichever is smaller (C in Farads)
Aging	NP0 : 0% , X7R, X5R : 2.5 % , Y5V: 6% per decade of time
Dielectric Strength	V ≤ 50 : 250% Rated Voltage
	V＜500V : 200% Rated Voltage
	500V ≤ V＜1000V : 150% Rated Voltage
	1000 ≤ V : 120% Rated Voltage

◆ How To Order

RDC	X	471	K	631	EK	A	N
Product Code RDC: Radial Ceramic Chip Capacitor	**Dielectric** Ex.: N : NP0 X : X7R B : X5R Y : Y5V	**Capacitance Unit : pF** Ex.: 2R0 : 2.0pF 100 : 10×10^0 471 : 47×10^1 102 : 10×10^2	**Tolerance** Ex.: C : +/-0.25pF D : +/-0.50pF J : +/- 5% K : +/-10% M : +/-20% Z : +80/-20%	**Rated Voltage** Ex.: 007:6.3Vdc 010:10Vdc 025:25Vdc 050:50Vdc 101:100Vdc 251:250Vdc 631:630Vdc 102:1000Vdc	**Leader Style & Dimension** Ex: D Type CD:4.5x5.5mm DD:4.5x5.5mm ED:5.5x7.0mm FD:7.5x8.0mm K Type CK:4.5x5.5mm DK:4.5x5.5mm EK:5.5x7.0mm FK:7.5x8.0mm	**Lead Length & Packaging** Ex.: S: 5.0mm M: 10.0mm L: 25mm min. O: 30mm A: Ammo Box	**Optional Suffix & Special requirement** Ex.: Blank: No special requirement N: Halogen Free C: F= 5.0±1.0 mm (special lead space) D: Special thickness 4.0mm

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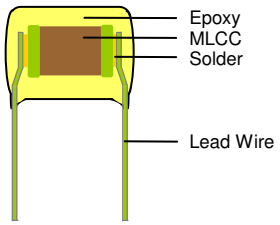
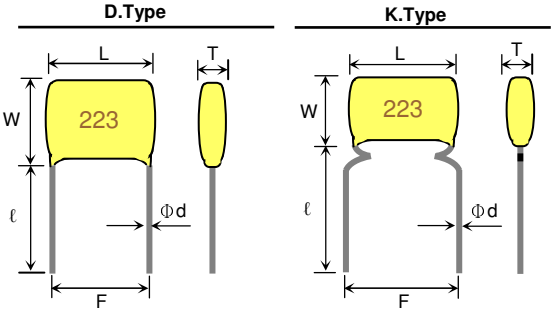
◆ Structure & Standard Dimensions





Unit : mm [inches]

TYPE	L (max)	W (max)	T (max)	F	ℓ (min)	Φd
CD	4.5 [0.177]	5.5 [0.217]	2.5 [0.098]	2.5±0.5 [.098 ±.020]	25.0 [0.984]	0.5±0.1 [0.020 ±.004]
CK	4.5 [0.177]	5.5 [0.217]	2.5 [0.098]	5.0±1.0 [.197 ±.039	25.0 [0.984]	0.5±0.1 [0.020 ±.004]
DD	4.5 [0.177]	5.5 [0.217]	2.5 [0.098]	2.5±0.5 [.098 ±.020]	25.0 [0.984]	0.5±0.1 [0.020 ±.004]
DK	4.5 [0.177]	5.5 [0.217]	2.5 [0.098]	5.0±1.0 [.197 ±.039]	25.0 [0.984]	0.5±0.1 [0.020 ±.004]
ED	5.5 [0.217]	7.0 [0.276]	4.0 [0.157]	2.5±0.5 [.098 ±.020]	25.0 [0.984]	0.5±0.1 [0.020 ±.004]
EK	5.5 [0.217]	7.0 [0.276]	4.0 [0.157]	5.0±1.0 [.197 ±.039]	25.0 [0.984]	0.5±0.1 [0.020 ±.004]
FD	7.5 [0.295]	8.0 [0.315]	4.0 [0.157]	5.0±1.0 [.197 ±.039]	25.0 [0.984]	0.6±0.1 [0.024 ±.004]
FK	7.5 [0.295]	8.0 [0.315]	4.0 [0.157]	6.0±1.0 [.236 ±.039]	25.0 [0.984]	0.6±0.1 [0.024 ±.004]
GD	7.6 [0.299]	9.4 [0.370]	6.9 [0.272]	6.0±1.0 [.236 ±.039]	25.0 [0.984]	0.6±0.1 [0.024 ±.004]
GK	7.6 [0.299]	9.4 [0.370]	6.9 [0.272]	9.5±1.0 [.374 ±.039]	25.0 [0.984]	0.6±0.1 [0.024 ±.004]
WD	7.5 [0.295]	7.0 [0.276]	4.0 [0.157]	5.0±1.0 [.197 ±.039]	25.0 [0.984]	0.6±0.1 [0.024 ±.004]
WK	7.5 [0.295]	7.0 [0.276]	4.0 [0.157]	5.0±1.0 [.197 ±.039]	25.0 [0.984]	0.6±0.1 [0.024 ±.004]
UD	7.0 [0.276]	10.7 [0.421]	6.90 [0.272]	5.0±1.0 [.197 ±.039]	25.0 [0.984]	0.6±0.1 [0.024 ±.004]

◆ Capacitance Range

NP0(N) Series

Type	C□			D□							E□								W□	
WVDC	50V	100V	250V	16V	25V	50V	100V	250V	500V	1KV	16V	25V	50V	100V	250V	500V	630V	1KV	500V	1KV
Cap Min.	121	560	560	471	100	100	100	100	100	470	102	180	180	180	150	150	150	100	102	2R0
Cap Max.	821	681	681	123	123	123	822	392	331	470	473	473	473	473	103	472	392	102	242	331

Type	F□						G□					U□			
WVDC	16V	25V	50V	100V	500V	1KV	50V	100V	250V	500V	1KV	50V	250V	500V	630V
Cap Min.	102	102	102	102	821	680	822	822	223	102	391	333	392	103	333
Cap Max.	104	104	104	104	822	682	273	273	273	223	103	104	104	473	333

X7R(X) Series

Type	C□		D□						E□								W□			
WVDC	50V	100V	25V	50V	100V	250V	500V	1KV	25V	50V	100V	200V	250V	500V	630V	1KV	250V	500V	630V	1KV
Cap Min.	103	221	154	103	103	271	271	221	223	223	332	102	181	181	392	221	272	272	272	272
Cap Max.	104	104	684	474	104	473	473	222	225	475	225	224	474	104	683	333	124	473	473	153

Type	F□						G□							U□					
WVDC	50V	100V	250V	500V	630V	1KV	25V	50V	100V	250V	500V	630V	1KV	50V	100V	250V	300V	500V	1KV
Cap Min.	563	563	103	103	221	221	106	474	474	154	104	104	103	684	104	103	103	683	103
Cap Max.	106	225	105	474	104	104	226	106	106	225	474	474	224	225	105	105	105	274	104

X5R(B) Series

Type	D□			E□		G□		
WVDC	25V	50V	100V	25V	50V	25V	50V	100V
Cap Min.	154	154	104	104	104	106	105	105
Cap Max.	105	105	334	225	225	226	106	106

Y5V(Y) Series

Type	D□
WVDC	25V
Cap Min.	103
Cap Max.	225

▪ ***Other dimensions, capacitance values and voltages rating are available. Please contact Holy Stone.***