

Disc type ceramic capacitors

High dielectric constant type - IEC 60384-9



Features

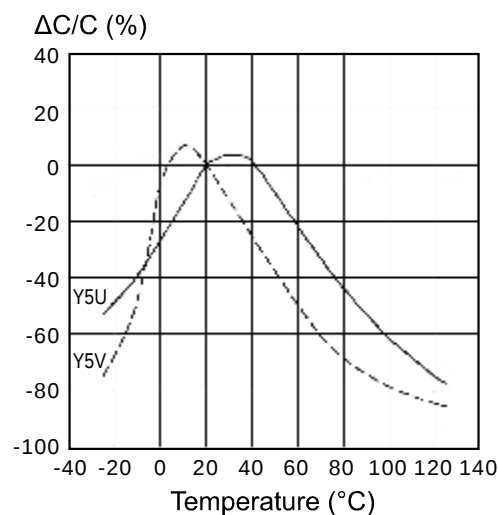
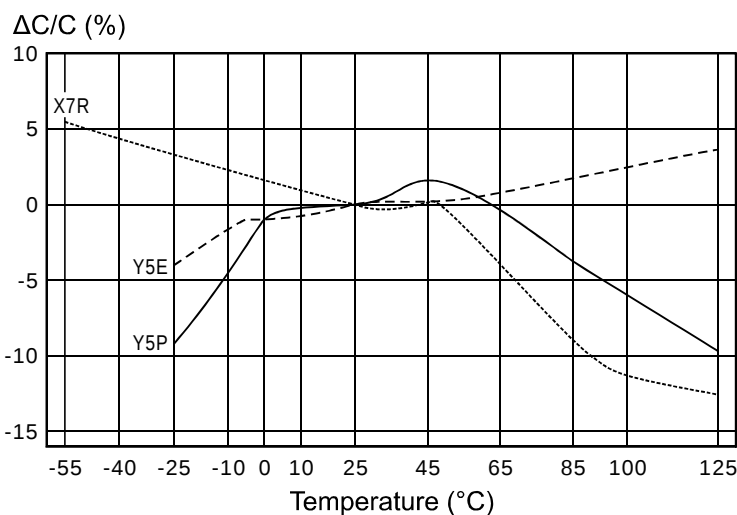
- RoHS complied.
- Non linear temperature coefficient of capacitance.
- Large capacitance in small sizes.

Applications

- By-pass and coupling.
- Frequency discriminating circuits where Q and stability of capacitance characteristic are not major importance.

General Specifications

Operating Temperature Range	-25°C to +125°C
Capacitance Range	100pF to 0.1uF
Rated Voltage (U_R)	16V to 6300V
Dielectric Strength	$U_R < 630V$: $2.5U_R$ $630V \leq U_R \leq 2KV$: $1.5U_R + 500V$ $U_R > 2KV$: $1.5U_R$ Both are 1-3s, 50mA max.
Capacitance (C_R)	Within the specified tolerance. Tested by $1kHz \pm 20\%$, $1V_{rms}$, $25 \pm 1^\circ C$
Dissipation Factor	Y5P, Y5U, Z5U: 0.025 max. X7R : 0.035 max. Y5V, Z5V : 0.050 max. Measured condition see "Capacitance (C_R)"
Insulation Resistance	10000M Ω min. $U_R < 500V$: U_R $U_R \geq 500V$: 500V Both are 1 minute.
Temperature coefficient	Y5P, X7R, Z5U, Y5U, Z5V, Y5V etc.



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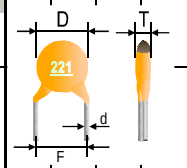
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Capacitance Chart

PREFERRED SIZES ARE SHADED

Rated Voltage (DC)	50V to 250V				500V / 630V				1KV / 1.6KV				2KV to 3KV				4KV				6KV			
Dielectric	Y5P	X7R	Y5U Z5U	Y5V Z5V	Y5P	X7R	Y5U Z5U	Y5V Z5V	Y5P	X7R	Y5U Z5U	Y5V Z5V	Y5P	X7R	Y5U	Y5V	Y5P	X7R	Y5U	Y5V	Y5P	X7R	Y5U	Y5V
Capacitance (pF)	100								C				D	D			D	D			D	D		
	120								C				D	D			D	D			D	D		
	150				C				C				D	D			D	D			D	D		
	180				C				C				D	D			D	D			D	D		
	220	A	A		C	C			C				D	D			D	D			D	D		
	270	A	A		C	C			C				D	D			D	D			D	D		
	330	A	A		C	C			C				D	D			D	D			D	D		
	390	A	A		C	C			C				D	D			D	D			D	D		
	470	A	A		C	C			C				D	D			E	E			F	F	D	
	560	A	A		C	C			C	D			F	F			F	F			G	G	D	
	680	A	A		C	C			C	D			G	F			G	F			H	H	E	
	820	A	A		C	C			D	D			G	G			H	H			I	I	F	
	1000	A	A		C	C	C		D	D	C	C	G	G	D	D	I	I	E	E	K	K	F	D
	1200	A	A		E	D	C		F	F	C	C	I	I	E	D	K	K	F	E	L	L	H	F
	1500	A	A		E	E	C		F	F	D	C	I	I	F	D	L	L	G	E	M	M	H	F
	1800	C	C		G	F	C		I	J	D	C	K	J	H	D	M	M	H	F	N	N	K	G
	2200	C	C	A	G	H	C	C	I	J	D	C	L	K	H	D	N	N	I	G	N	N	L	I
	2700	E	E	A	G	H	E	C	L	K	F	C	M	L	I	F			K	H			L	J
	3300	E	E	A	I	K	E	C	L	K	F	C	N	N	J	G			K	I			M	K
	3900	F	F	A	I	K	E	E	M	L	G	G	N	N	K	H			L	J			N	L
	4700	G	G	A	K	K	G	E	M	M	I	G	P	N	K	J			L	K			N	M
	5600	H	H	C	L	L	H	E	N	N	K	G	Q		L	K			N	K			M	M
	6800	J	J	D	A	M	H	G	O	N	K	I	Q		M	K			N	L			N	N
	8200	L	L	E	C	N	K	I	Q	Q	M	K	S		N	M			O	M			Q	Q
Capacitance (μF)	0.010	L	L	E	C	N	K	I	Q	Q	M	L	S		N	N			P	N				Q
	0.015			G			M	M			P	M				N				P				
	0.022			J			N	N			P	N				N								
	0.033						Q	N				P												
	0.047						S	O				S												
	0.068							Q																
	0.100							Q																
	0.150																							
Capacitance Tolerance	±10% ±20%	±20% +80~-20%	±10% ±20%	±20% +80~-20%	±10% ±20%	±20% +80~-20%	±10% ±20%	±20% +80~-20%	±10% ±20%	±20% +80~-20%	±10% ±20%	±20% +80~-20%	±10% ±20%	±20% +80~-20%	±10% ±20%	±20% +80~-20%	±10% ±20%	±20% +80~-20%	±10% ±20%	±20% +80~-20%	±10% ±20%	±20% +80~-20%	±10% ±20%	±20% +80~-20%
Thickness (T) max.	3.5mm				4.0mm				4.5mm				5.0mm				6.0mm				8.0mm			
Lead Spacing (F) ±1.0mm	2.5mm / 5.0mm				2.5mm / 5.0mm				5.0mm/7.5mm/10mm				5.0mm/7.5mm/10mm				5.0mm/7.5mm/10mm				5.0mm/7.5mm/10mm			
Lead Diameter (d) ±0.1mm	0.5mm				0.5mm				0.5mm				0.6mm				0.6mm				0.6mm			
Coating	Phenolic resin				Phenolic resin				Phenolic resin or Epoxy resin				Epoxy resin				Epoxy resin				Epoxy resin			
Body color	Saffron yellow				Saffron yellow				Saffron yellow or Sky blue				Sky blue				Sky blue				Sky blue			



Code	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
Diameter (D) max.	5.0mm	5.5mm	6.0mm	6.5mm	7.0mm	7.5mm	8.0mm	8.5mm	9.0mm	10mm	11mm	12mm	14mm	15mm	16mm	18mm	19mm	20mm	22mm	25mm

This 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.