

Disc type ceramic capacitors

Temperature compensating type - IEC 60384-8



Features

- RoHS complied.
- Linear temperature coefficient of capacitance.
- High stability of capacitance.
- Low loss at wide range of frequency.

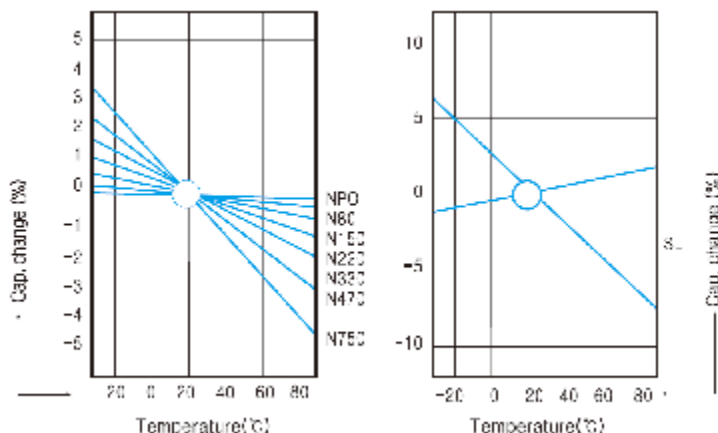
Applications

- Resonant circuit.
- High Q value requirement.
- high stability capacitance characteristics.

General Specifications

Operating Temperature Range	-55°C to +125°C
Capacitance Range	0.5pF to 1800pF
Rated Voltage (U _R)	16V to 6300V
Dielectric Strength	U _R < 630V: 2.5U _R 630V ≤ U _R ≤ 2KV: 1.5U _R + 500V U _R > 2KV: 1.5U _R Both are 1-3s, 50mA max.
Capacitance (C _R)	Within the specified tolerance. C _R ≤ 1000pF measured at 1MHz ± 20% C _R > 1000pF measured at 1kHz ± 20% Both are 1Vrms, 25 ± 1°C
Q Value	C _R ≥ 30pF, Q ≥ 1000; C _R < 30pF, Q ≥ 400 + 20C _R Measured condition see "Capacitance (C _R)"
Insulation Resistance	10000MΩ min. U _R < 500V: U _R U _R ≥ 500V: 500V Both are 1 minute.
Temperature coefficient	NPO, N150, N220, N470, N750, SL etc.

T. C.	PPM/°C	EIA Code	Color
NP0	0 ± 60	C0H	Black
N80	-75 ± 60	U1H	Red
N150	-150 ± 60	P2H	Orange
N220	-220 ± 60	R2H	Yellow
N330	-330 ± 60	S2H	Green
N470	-470 ± 60	T2H	Blue
N750	-750 ± 120	U2J	Violet
SL	+350 ~ -1000	-----	-----



Disc type ceramic capacitors

Temperature compensating type - IEC 60384-8



Capacitance Chart

PREFERRED SIZES ARE SHADED

Rated Voltage (DC)		50V to 250V							500V / 630V				1000V / 1600V				2000V to 3000V				4000V			6000V		
Dielectric		NP0	N150	N220	N470	N750	DL	SL	NP0	N750	DL	SL	NP0	N750	DL	SL	NP0	N750	DL	SL	NP0	DL	SL	NP0	DL	SL
Capacitance (pF)	0.5	A							C				C				D				D					
	1.0	A							C				C				D				D					
	~	A							C				C				D				D					
	9.1	A							C				C				D				D					
10	±5% *	A							C				C				D				D					
11		A							C				C				D				D					
12		A	B						C				C				D				D					
13		A	B						C				C				D				D					
15	±5% *	A	B	C					C				C				D	D			D					
16		A	B	C					C				C				D	D			D					
18		A	B	C		A			C	C			C				D	D			D					
20		A	B	C	C	A			C	C			C				D	D			D					
22	±5% *	A	B	C	C	A			C	C			C	C			D	D			F	C		D		
24		A	B	C	C	A			C	C			C	C			D	D			F	C		D		
27		A	B	C	C	A			C	C			C	C			D	D			F	C		D		
30		A	B	C	C	A			C	C			C	C			D	D			F	C		D		
33	±5% *	A	B	C	C	A			C	C			D	C			G	G			D	C		D		
36		A	B	C	C	A			D	C			D	C			G	G			D	C		D		
39		A	B	C	C	A			D	C			D	C			G	G			D	C		D		
43		B	B	D	C	A			D	D		C	D	D			G	G			D	L	C	D		
47	±5% *	C	C	E	C	A			D	D			C	D			G	J			D	M	C	E		
51		C	C	E	E	A			D	E			C	E			H	J			D	N	C	F		
56		C	C	E	E	A			D	E			C	E			H	J			D	N	C	F		
62		C	D	E	E	C		A	D	G			C	G			H	J			D	N	C	F		
68	±5% *	D	D	G	E	C			A	G	E		C	G			H	J			F	O	C	G		
75		D	D	G	F	C			A	G	G		C	G			H	J			F	O	C	C		
82		D	D	G	F	C			A	G	G		C	G			H	J			F	O	C	C		
91		E	J	G	G	E			A	A	G			G	H			J	L			H	P	C	C	
100	±5% *	E	E	J	G	E			A	H	G		C	H			L	L			P	C		R		
110		E	G	J	H	F			A	K	I		C	I								D	E			
120		G	G	J	J	F			A	K	I		C	I								D	E			
130		G	G	J	J	F			A	K	I		D	I									E	E		
150	±5% *	H	H	L	J	F			C	K	I		C	K			C	F			C	J		F		
160		J	J	L	J	I					K		A	K			C	F			C	J		F		
180		J	J	L	L	I					K		A	K			C	F			C	J		F		
200		J	J	N	L	I	C				K		A	F			C	F			C	K		F		
220	±5% *	K	L	N	N	K	C	D		M		G			E						E	K		H		
240		K	L		N	K	C	D				A			E						E	K		H		
270		K	L		N	K	C	E				A			E						E	K		H		
300		K	L	M		K	C	G				A			E						E	K		H		
330	±5% *	L	M			K	C	G			A	J		E	J						G	O		L		
360		N					C	G			C	J		E	J						G	O				
390		N					C	G			C	J		E	J						G	O				
430		N					C	G			C	J		E	J						G	O				
470	±5% *						C	I			D	K		G	K					J	O		N			
510							C	I			D	K		G	K					J	O		N			
560							C	I			D	K		G	K					J	O		N			
620							C	K			D	L		J	L						N					
680	±5% *						F	K			F	G		J	O					M		P				
750							F	K			F	G		J	O					M		P				
820							F	K			F	G		J	O					M		P				
910							F	K			F	G		J	O					M		P				
1000	±10%* ±20%						F	M			H			N						O		R				
1200																				P						
1500																				P						
1800																				P						
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					
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		