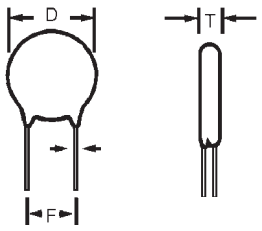
Disc Ceramic Capacitors

General Specifications - Class I Temperature Compensating

DIELECTRIC - CLASS I

These ceramic capacitors have linear temperature coefficient, very low tolerances, low losses, high insulation resistance and are specially suitable for tuned circuits, timing and other precision circuits. Meets IEC 384-8 (1988).



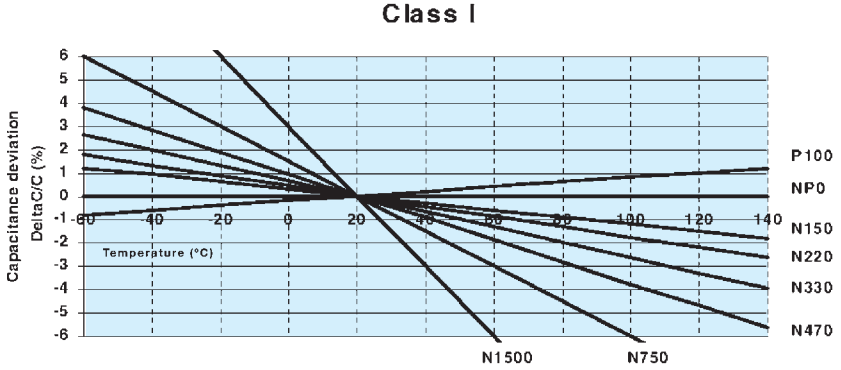
HOW TO ORDER

5A	K	101	K	A	F	A	A
Product Code	Voltage	Capacitance	Tolerance	Lead Forming	Capacitor Diameter	Finishing	Packaging

PERFORMANCE CHARACTERISTICS

Voltage Rating	100 V → 500 V	1kV → 5kV
Measured at	1.0 MHz @ 1.0 Vrms / 25ºC	1.0 MHz @ 1.0 Vrms / 25ºC
Dissipation Factor (%)	$C_R \leq 30$ pF → $\leq 1/C_R + 0.07$ $C_R > 30$ pF → $\leq 0.1\%$	$C_R \leq 30$ pF → $\leq 1/C_R + 0.07$ $C_R > 30$ pF → $\leq 0.1\%$
Tolerance	$C_R < 10$ pF → ±0.25 pF, ±0.5 pF $C_R \geq 10$ pF → ±5%, ±10%	$C_R < 10$ pF → ±0.25 pF, ±0.5 pF $C_R \geq 10$ pF → ±5%, ±10%
Insulation Resistance (IR)	@ $V_R \geq 10$ GΩ	@ 500V ≥ 10 GΩ
Dielectric Strength NOTE: Charging current limited to 50 mA	@ $V_R = 100$V → Vt = 250V (DC) @ $V_R = 500$V → Vt = 1250V (DC)	1.5 x V_R + 500 (DC)
Operating Temperature Range (ºC)	-30 → +85ºC	-30 → +85ºC -30 → +125ºC
Climatic Category	30 / 85 / 21 Phenolic Coated	30 / 085 / 21 Phenolic Coated 30 / 085 / 56 Epoxy Coated

TEMPERATURE COEFFICIENT – TYPICAL CURVES



Disc Ceramic Capacitors

Dimension Table - Class I Temperature Compensating

CLASS I - CAPACITANCE VS. DISC DIAMETER

millimeters (inches)

Temp. Coefficient	NP0					
Digits 1, 2, 3 of P.N.	5AK	5AQ	5AR	5AS	5AT	5AU
Rated Voltage (V_R)	100 VDC	500 VDC	1000 VDC 130 VAC	2000 VDC 250 VAC	3000 VDC 380 VAC	4000 VDC 440 VAC
C_R (pF)						
1.0	5.0 (0.197)	5.0 (0.197)	5.0 (0.197)	5.0 (0.197)	5.0 (0.197	5.0 (0.197
1.2						
1.5						
1.8						
2.2						
2.7						
3.3						
3.9						
4.7						
5.6						
6.8						
8.2						6.0 (0.236)
10					6.0 (0.236)	8.0 (0.315
12						
15				6.0 (0.236)	8.0 (0.315)	
18				8.0 (0.315)		
22			6.0 (0.236)			
27		6.0 (0.236)	8.0 (0.315)		9.0 (0.354)	10.0 (0.394)
33						
39		7.0 (0.276)				11.0 (0.433)
47	7.0 (0.276)			9.0 (0.354)	11.0 (0.433)	
56		8.0 (0.315)	9.0 (0.354)			12.0 (0.472)
68	8.0 (0.315)			11.0 (0.433)	12.0 (0.472)	
82		9.0 (0.354)	10.0 (0.394)			14.0 (0.551)
100	9.0 (0.354)			14.0 (0.551)	14.0 (0.551)	
120		11.0 (0.433)	12.0 (0.472)			
150	11.0 (0.433)	12.0 (0.472)	14.0 (0.551)	16.0 (0.630)		
180		14.0 (0.551)	16.0 (0.630)			
220	12.0 (0.472)					
270		16.0 (0.630)				
330		19.0 (0.748)				
390	12.0 (0.472)					

Disc Ceramic Capacitors

Dimension Table - Class I Temperature Compensating

CLASS I - CAPACITANCE VS. DISC DIAMETER

millimeters (inches)

Temp. Coefficient	N750							N1500	
Digits 1, 2, 3 of P.N.	5GK	5GQ	5GR	5GS	5GT	5GU	5GW	5HK	5HQ
Rated Voltage (V_R)	100 VDC	500 VDC	1000 VDC 130 VAC	2000 VDC 250 VAC	3000 VDC 380 VAC	4000 VDC 440 VAC	5000 VDC 550 VAC	100 VDC	500 VDC
C_R (pF)									
1.5	5.0 (0.197)	5.0 (0.197)							
1.8									
2.2									
2.7									
3.3									
3.9									
4.7									
5.6									
6.8				5.0 (0.197)	5.0 (0.197)			5.0 (0.197)	5.0 (0.197)
8.2			5.0 (0.197)				6.0 (0.236)		
9.0						6.0 (0.236)			
10									
12							8.0 (0.315)		
15						8.0 (0.315)			
18									
22					6.0 (0.236)				
27				6.0 (0.236)	8.0 (0.315)		9.0 (0.354)		
33				8.0 (0.315)		9.0 (0.354)	10.0 (0.394)		
39			6.0 (0.236)						
47		6.0 (0.236)	8.0 (0.315)		9.0 (0.354)	11.0 (0.433)	11.0 (0.433)		6.0 (0.236)
56					10.0 (0.394)	12.0 (0.472)			
68		7.0 (0.276)		9.0 (0.354)	11.0 (0.433)	12.0 (0.472)	14.0 (0.551)	7.0 (0.276)	7.0 (0.276)
82	7.0 (0.276)	8.0 (0.315)	9.0 (0.354)	11.0 (0.433)	14.0 (0.551)	14.0 (0.551)			8.0 (0.315)
100	8.0 (0.315)	9.0 (0.354)	10.0 (0.394)	12.0 (0.472)	14.0 (0.551)			8.0 (0.315)	9.0 (0.354)
120		11.0 (0.433)	12.0 (0.472)	14.0 (0.551)	16.0 (0.630)			9.0 (0.354)	11.0 (0.433)
150	10.0 (0.394)	14.0 (0.551)	14.0 (0.551)	16.0 (0.630)				10.0 (0.394)	
180	11.0 (0.433)								
220									
270									
330									