## **Disc Ceramic Capacitors**



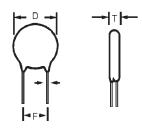
### **General Specifications - SL**

#### **CAPACITORS - CLASS SL**

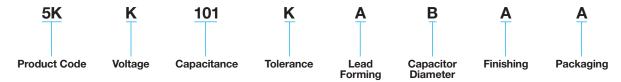
These capacitors have wide temperature characteristics but still offer low loss and linear type TC's.

They are specially designed to be smaller alternative to standard Class I capacitors of linear temperature coefficient.

Typical application is RF tuning and decoupling.



#### **HOW TO ORDER**



#### PERFORMANCE CHARACTERISTICS

	Low Voltage	High Voltage	
Measured at	$C_{\rm R} \le 100~{\rm pF} \rightarrow 1{\rm MHz}/1.0~{\rm Vrms} / 25^{\circ}{\rm C}$ $C_{\rm R} > 100~{\rm pF} \rightarrow 1{\rm kHz}/0.3~{\rm Vrms} / 25^{\circ}{\rm C}$	1.0kHz @ 0.3 Vrms / 25°C	
Dissipation Factor (%)	$C_R \le 100 \text{ pF} \dots 0.10\%$ 1MHz @ 1.0 Vrms $C_R > 100 \text{ pF} \dots 1.0\%$ 100kHz @ 0.3 Vrms $C_R > 100 \text{ pF} \dots 0.10\%$ 1kHz @ 0.3 Vrms	1MHz @ 1.0 Vrms 100kHz @ 0.3 Vrms 1kHz @ 0.3 Vrms	
Tolerance	$C_R \le 10 \text{ pF} \to \pm 0.25 \text{ pF}, \pm 0.5 \text{ pF}$ $C_R > 10 \text{ pF} \to \pm 5\%, \pm 10\%, \pm 20\%$	$C_R \le 10 \text{ pF} \rightarrow \pm 0.25 \text{ pF}, \pm 0.5 \text{ pF}$ $C_R > 10 \text{ pF} \rightarrow \pm 5\%, \pm 10\%, \pm 20\%$	
Temperature Coefficient	+350 ppm1500 ppm (P350 N1500)		
Insulation Resistance (IR)	$@V_R$ → ≥ 10 GΩ	@ 500V → ≥ 10 GΩ	
Dielectric Strength NOTE: Charging current limited to 50 mA	@ $V_R = 100V \rightarrow Vt = 250V (DC)$ @ $V_R = 500V \rightarrow Vt = 1250V (DC)$	1.5 x V <sub>R</sub> + 500 (DC)	
dV/dt Test	up to 1.5 kV/µsec	up to 10 kV/µsec	
Operating Temperature Range (°C)	-30 +85°C	-30 +125°C	
Climatic Category	30 / 85 / 21 Phenolic Coated	30 / 85 / 56 Epoxy Coated	

Note: Damp Heat Steady State: 90... 95% R.H.  $40^{\circ}\text{C}$  / 21 days. No voltage to be applied.



# **Disc Ceramic Capacitors**



## **Dimension Table - SL - Low Dissipation Class**

#### SL - CAPACITANCE VS. DISC DIAMETER

#### millimeters (inches)

Туре	Phenolic Coating		Epoxy Coating		
Digits 1, 2, 3 of P.N.	5KK	5KQ	5KR	5KS	5KT
Rated Voltage (V <sub>R</sub> ) C <sub>R</sub> (pF)	100 VDC 50 VAC	500 VDC 100 VAC	1000 VDC 100 VAC	2000 VDC 150 VAC	3000 VDC 150 VAC
1.0 1.2 1.5 2.2 2.7 3.3 3.9 4.7 5.6 8.2 10 12 15	5.0 (0.197)	5.0 (0.197)			
22 27 33 39					6.0 (0.236)
47 56 68		6.0 (0.236)	6.0 (0.236)	6.0 (0.236)	0.0 (0.250)
82 100 120			8.0 (0.315)		
150 180 220 270				8.0 (0.315)	8.0 (0.315)
330 390		7.0 (0.276)	9.0 (0.354)	9.0 (0.354)	9.0 (0.354)
470 560			10.0 (0.394)	10.0 (0.394)	10.0 (0.394)
680 820	7.0 (0.276)	0.0 (0.045)	, ,	10.0 (0.470)	` ′
1000	8.0 (0.315)	8.0 (0.315)	12.0 (0.472)	12.0 (0.472)	12.0 (0.472)

Diameter (φ) = 9th Part Number Digit

