

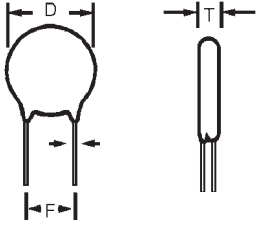
# Disc Ceramic Capacitors



## General Specifications - Class III Semi Conducting

### DIELECTRIC - CLASS III

A thin dielectric layer is grown on a disc of conductive ceramic. Very large capacitances can be obtained due to reduced thickness of this barrier layer and its inherently high dielectric constant. Due to its small dimensions, they are a less expensive replacement of multilayer ceramic or polyester capacitors. An equivalent circuit is shown below:



Meets IEC 324 (1970).

### HOW TO ORDER



### PERFORMANCE CHARACTERISTICS CLASS III

|  |   |  |
|--|---|--|
| Measured at  | 1.0 kHz / 0.1 Vrms / 25°C   |  |
| Dissipation Factor (%)   | $C_R \leq 22 \text{ nF} \rightarrow Y5V, Y5U \leq 7.5\%$<br>$C_R > 22 \text{ nF} \rightarrow Y5V, Y5P \leq 5.0\%$                 |  |
| Tolerance  | $Y5P \rightarrow \pm 20\% / -20 + 50\%$<br>$Y5U \rightarrow \pm 20\% / -20 + 50\%$<br>$Y5V \rightarrow -20\% + 50\% / -20 + 80\%$ |  |
| Insulation Resistance (IR)                                     | Y5P   | $\geq 12 \text{ M}\Omega$  |
|  | Y5U   | $4.7 \text{ nF} \dots 100 \text{ nF} \rightarrow \geq 10 \text{ M}\Omega$<br>$200 \text{ nF} \rightarrow \geq 1 \text{ M}\Omega$ |
|  | Y5V   | $\geq 100 \text{ M}\Omega$   |
| Dielectric Strength<br>NOTE: Charging current limited to 50 mA | Between leads   | $V_t = 1.25 V_R$   |
|  | Body insulation   | $V_R = 25V \quad V_t = 100V \text{ (DC)}$<br>$V_R = 50V \quad V_t = 150V \text{ (DC)}$   |
| Operating Temperature Range (°C)                               | -30... +85°C  |  |
| Climate Category   | 30 / 85 / 21  |  |

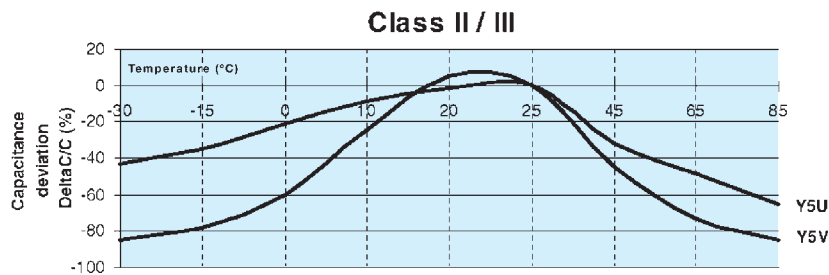
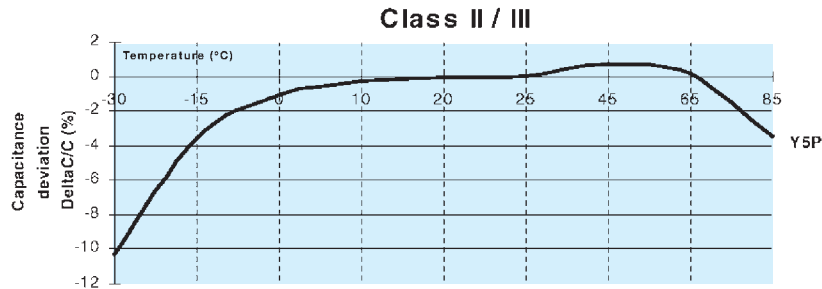


# Disc Ceramic Capacitors

## General Specifications - Class III Semi Conducting



### TEMPERATURE COEFFICIENT – TYPICAL CURVES



### PHENOLIC COATED – CAPACITANCE VS. DISC DIAMETER

millimeters (inches)

| Class III               | $\Delta C/C$ (max.) $\pm 12\%$<br>Range -30... +85°C |              | $\Delta C/C$ (max.) +30 -65%<br>Range -30... +85°C |              | $\Delta C/C$ (max.) +30 -65%<br>Range -30... +85°C |  |
|-------------------------|--|--------------|--|--------------|--|--|
|                         | Y5P  |              | Y5U  |              | Y5V  |  |
| Temp. Coefficient       | Y5P  |              | Y5U  |              | Y5V  |  |
| Digits 1,2,3 of P.N.    | 5WF  | 5WH          | 5YF  | 5YH          | 5ZH  |  |
| Rated Voltage ( $V_R$ ) | 25 VDC   | 50 VDC       | 25 VDC   | 50 VDC       | 50 VDC   |  |
| $C_R$ (pF)              |  |              |  |              |  |  |
| 4,700                   | 5.0 (0.197)  | 5.0 (0.197)  | 5.0 (0.197)  | 5.0 (0.197)  | 5.0 (0.197)  |  |
| 10,000                  | 6.0 (0.236)  | 6.0 (0.236)  |  | 6.0 (0.236)  |  |  |
| 22,000                  | 7.0 (0.276)  | 8.0 (0.315)  | 7.0 (0.276)  | 8.0 (0.315)  |  |  |
| 33,000                  | 8.0 (0.315)  | 9.0 (0.354)  | 6.0 (0.236)  | 7.0 (0.276)  | 6.0 (0.236)  |  |
| 47,000                  | 9.0 (0.354)  |              | 7.0 (0.276)  | 8.0 (0.315)  |  |  |
| 50,000                  |  | 11.0 (0.433) |  | 11.0 (0.433) |  |  |
| 68,000                  | 11.0 (0.433)   | 11.0 (0.433) | 8.0 (0.315)  | 9.0 (0.354)  | 10.0 (0.394)                                       |  |
| 100,000                 |  |              | 8.0 (0.315)  | 9.0 (0.354)  |  |  |
| 200,000                 |  |              |  |              |  |  |

Note: Damp Heat Steady State: 90... 95% R.H. 40°C / 21 days. No voltage to be applied.

单击下面可查看定价，库存，交付和生命周期等信息

[>>AVX](#)