

# Ceramic Capacitors

## Series S-UL

### 125VAC, 250VAC, and 400VAC, UL, CSA, and VDE Listed Ceramic Disc Capacitors

Philips Components safety-recognized Ceramic AC Capacitors are designed especially for across-the-line, antenna-coupling and line-by-pass application.

#### Type DL Capacitors

UL File No. E95439(N) per UL-1414, 250VAC  
 CSA File No. LR61253-4 per CSA C22.2 class 2221 01, 125VAC  
 VDE File No. 49936/49937 per VDE 0560 part 2/5.70, 400VAC

#### Type DM Capacitors

UL File No. E95439(N) per UL-1414, 125VAC  
 CSA File No. LR61253-4 per CSA C22.2 class 2221 01, 125VAC  
 VDE File No. 53134/55424, 125VAC

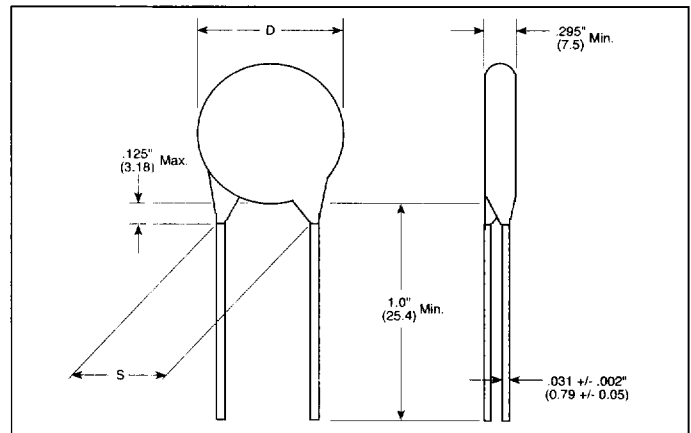
### Parameters

#### Electrical

Operating Temperature Range:  $-30^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$   
 Capacitance Range: 100pF to 0.01 $\mu\text{F}$ . Tested at 1.0  $\pm$  0.2V RMS,  $+25^{\circ}\text{C}$  and 1 KHz  
 Capacitance Tolerance:  
 K =  $\pm 10\%$  (100PF TO 330PF)  
 M =  $\pm 20\%$   
 Working Voltage Type DL: 250/400VAC, 50/60Hz  
 Type DM: 125VAC, 50/60Hz  
 Dielectric Strength Type DL: 2500VAC for 60 seconds  
 Type DM: 1800VAC for 2 seconds  
 Dissipation Factor: 2.5% max. at 1.0  $\pm$  0.2V RMS,  $+25^{\circ}\text{C}$  and 1KHz  
 Insulation Resistance: 10,000 Megohms min. at 500VDC  
 Temperature Characteristics: Z5P (also meet Y5P): 100pF up to 330pF  
 Z5U (also meet Y5V): over 330pF up to .01 $\mu\text{F}$   
 Others: per UL/CSA/VDE standards

### Mechanical

Typical Marking: Manufacturer's Identification  
 Capacitance and Tolerance  
 Type Designation  
 Safety Approval Mark  
 Encapsulation: Epoxy Resin  
 Flammability 94V-0  
 Disc Size and Lead Style: See Figure Below  
 Note: 1 Inch = 25.4mm



### S-UL 1 Part Number System

S	102	M	43	Z5U	Q	AW	ST
S Special Capacitors	Capacitance Value First 2 digits are significant, third digit is a multiplier as follows: 0 x 1 1 x 10 2 x 100 3 x 1000	Tolerance Code K $\pm 10\%$ M $\pm 20\%$	Size Code 33 .330" Dia x .240" Thick 43 .430" Dia x .240" Thick 52 .520" Dia x .240" Thick 66 .660" Dia x .240" Thick 76 .760" Dia x .240" Thick 79 .790" Dia x .240" Thick 86 .860" Dia x .240" Thick 96 .960" Dia x .203" Thick	Temperature Characteristics Z5P $\pm 10\%$ Max Cap Change from $+10^{\circ}\text{C}$ to $+85^{\circ}\text{C}$ Z5U $+22/-56\%$ Max Cap Change from $+10^{\circ}\text{C}$ to $+85^{\circ}\text{C}$	Voltage Code Q 250VAC, 60Hz Y 125VAC, 60Hz Note: Q used for 400V per VDE	Mechanical Code Bulk Only AW Bulk, .250" Spacing, 1.00" Length, Tinned Copper, .032" Wire Dia. AX Bulk, .375" Spacing, 1.00" Length, Tinned Copper, .032" Wire Dia.	Test Code ST UL/CSA/VDE Testing Performed

### Disc Capacitor Distributor Part Number

#### DM125 & DL250 UL Listed Capacitors

	DM125	102	K
Series	DM125	DL250	
Volt	125vac	250vac	
Capacitance (pF)	102 ~ 1,000pF i.e. the third digit signifies the number of zeroes		
Tolerance	K = $\pm 10\%$ M = $\pm 20\%$ Z = $+80/-20\%$		

Note(s):

- Standard Lead Space (L/S) for size codes:  
 33 & 43 .250"; bulk only  
 52 and larger .375"; bulk only

# Ceramic Capacitors

## Series S-UL, CSA, VDE

DC Rate Voltage: 125 Volts

Cap.	Capacitance Code	Case Size	Maximum Diameter	Maximum Thickness	Lead Spacing	Lead Style	Philips Part Number	Distributor Part Number
100pF	101	33	.330"	.240"	.250"	SLL	S101K33Z5PYAWST	DM125101K
150pF	151	33	.330"	.240"	.250"	SLL	S151K33Z5PYAWST	DM125151K
220pF	221	43	.430"	.240"	.250"	SLL	S221K43Z5PYAWST	DM125221K
330pF	331	43	.430"	.240"	.250"	SLL	S331K43Z5PYAWST	DM125331K
470pF	471	43	.430"	.240"	.250"	SLL	S471M43Z5UYAWST	DM125471M
560pF	561	43	.430"	.240"	.250"	SLL	S561M43Z5UYAWST	DM125561M
680pF	681	43	.430"	.240"	.250"	SLL	S681M43Z5UYAWST	DM125681M
1000pF	102	43	.430"	.240"	.250"	SLL	S102M43Z5UYAWST	DM125102M
1500pF	152	52	.520"	.240"	.375"	SLL	S152M52Z5UYAXST	DM125152M
1800pF	182	66	.660"	.240"	.375"	SLL	S182M66Z5UYAXST	DM125182M
2200pF	222	66	.660"	.240"	.375"	SLL	S222M66Z5UYAXST	DM125222M
3300pF	332	76	.760"	.240"	.375"	SLL	S332M76Z5UYAXST	DM125332M
4700pF	472	76	.760"	.240"	.375"	SLL	S472M76Z5UYAXST	DM125472M
5100pF	512	76	.760"	.240"	.375"	SLL	S512M76Z5UYAXST	DM125512M
6800pF	682	79	.790"	.240"	.375"	SLL	S682M79Z5UYAXST	DM125682M
8200pF	822	86	.860"	.240"	.375"	SLL	S822M86Z5UYAXST	DM125822M
.01 $\mu$ F	103	96	.960"	.240"	.375"	SLL	S103M96Z5UYAXST	DM125103M

DC Rate Voltage: 250/400 Volts

Cap.	Capacitance Code	Case Size	Maximum Diameter	Maximum Thickness	Lead Spacing	Lead Style	Philips Part Number	Distributor Part Number
100pF	101	33	.330"	.240"	.250"	SLL	S101K33Z5PQAWST	DL250101K
150pF	151	33	.330"	.240"	.250"	SLL	S151K33Z5PQAWST	DL250151K
220pF	221	43	.430"	.240"	.250"	SLL	S221K43Z5PQAWST	DL250221K
330pF	331	43	.430"	.240"	.250"	SLL	S331K43Z5PQAWST	DL250331K
470pF	471	43	.430"	.240"	.250"	SLL	S471M43Z5UQAWST	DL250471M
560pF	561	43	.430"	.240"	.250"	SLL	S561M43Z5UQAWST	DL250561M
680pF	681	43	.430"	.240"	.250"	SLL	S681M43Z5UQAWST	DL250681M
1000pF	102	43	.430"	.240"	.250"	SLL	S102M43Z5UQAWST	DL250102M
1500pF	152	52	.520"	.240"	.375"	SLL	S152M52Z5UYAXST	DL250152M
1800pF	182	66	.660"	.240"	.375"	SLL	S182M66Z5UQAXST	DL250182M
2200pF	222	66	.660"	.240"	.375"	SLL	S222M66Z5UQAXST	DL250222M
3300pF	332	76	.760"	.240"	.375"	SLL	S332M76Z5UQAXST	DL250332M
4700pF	472	76	.760"	.240"	.375"	SLL	S472M76Z5UQAXST	DL250472M
5100pF	512	76	.760"	.240"	.375"	SLL	S512M76Z5UQAXST	DL250512M