Ceramic Singlelayer DC Disc Capacitors (Straight Leads) Gap-Kap, 1 kV_{DC} to 3 kV_{DC}

QUICK REFERENCE DATA			
DESCRIPTION	VALUE		
Ceramic Class	2		
Ceramic Dielectric	Z5P, Z5U		
Voltage (V_{AC})	1000	1500	3000
Min. Capacitance (pF)	0.75		
Max. Capacitance (pF)	22 000		
Mounting	Radial		

INTRODUCTION

Vishay BCcomponents Gap-Kap capacitors provide a safe reliable discharge path for stray transient overvoltages and static voltage build-up. Combination of capacitor-spark-gap construction allows the circuit designer to specify lower voltage components and consequently lower cost, with assurance that overvoltage conditions will be prevented.

The Gap-Kap capacitor is ideally suited for many industrial commercial equipment applications. A typical application in color TV monitors utilizes a minimum capacitance Gap-Kap which is inserted between the grid lead and chassis ground. This protects the components of control circuitry by providing a low impedance path to ground for transient voltages of 1500 V and above.

MARKING

Marking indicates capacitance value and tolerance in accordance with “EIA 198” and voltage marks.

OPERATING TEMPERATURE RANGE

- 30 °C to + 85 °C

TEMPERATURE COEFFICIENTS

EIA code Z5P or Z5U

SECTIONAL SPECIFICATIONS

Class 2, IEC 60384-9, EIA 198

FEATURES

- High reliability
- Straight leads
- Material categorization: For definitions of compliance please see www.vishay.com/doc?99912

RoHS COMPLIANT

APPLICATIONS

- Monitors
- Color TV

DESIGN

The capacitors consist of a ceramic disc both sides of which are silver-plated. Connection leads are made of tinned copper having a diameter of 0.8 mm.

The capacitors are supplied with straight leads and lead spacings from 5.0 mm to 10.0 mm. Encapsulation is phenolic resin coated, flammable resistant in accordance with “UL 94 V-0”.

CAPACITANCE RANGE

At 1 kHz, 1 V_{RMS} ± 0.2 V_{RMS}; 0.75 pF to 22 000 pF

RATED DC VOLTAGE

1 kV; 1.5 kV; 3 kV

INSULATION RESISTANCE AT 500 V_{DC}

≥ 10 000 MΩ min.

TOLERANCE ON CAPACITANCE

± 10 %; ± 20 %

DISSIPATION FACTOR

At 1 kHz, 1 V_{RMS} ± 0.2 V_{RMS}; 2.5 % max.

Note

- The capacitors meet the essential requirements of IEC 60384-9 and EIA 198.
  Unless stated otherwise all electrical values apply at an ambient temperature of 25 °C ± 3 °C, at normal atmospheric conditions.

For technical questions, contact: CDC@vishay.com

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ORDERING INFORMATION

C (pF)	TOL. (%)	VOLTAGE		$D_{MAX.}$ (mm)	$T_{MAX.}$ (mm)	LEAD SPACING S (mm)	CLEAR TEXT CODE
		WORKING (kV_{DC})	ARC (kV_{DC})				16^{TH} DIGIT: R = RoHS COMPLIANT
0.75	max.	1.0	1.0 to 2.0	11.0	5.0	5.0	S758X43000183L5.
						6.4	S758X43000183L6.
1000	± 20	1.5	2.0 to 3.0	11.0	4.5	5.0	S102M43Z5P283L5.
						6.4	S102M43Z5P283L6.
4700	± 20	3.0	4.0 to 6.0	24.5	6.0	10.0	S472M96Z5P483L0.
10 000	± 20	1.5	2.0 to 3.0	17.5	5.0	10.0	S103M69Z5U283L0.
22 000	± 20	1.5	2.0 to 3.0	24.5	4.5	10.0	S223M96Z5U283L0.

PACKAGING

PACKAGING TYPE	SIZE CODE	LEAD SPACE (mm)	VOLTAGE (V_{DC})	SPQ	BOX DIMENSIONS L x W x H (mm)
Bulk (long lead L ≥ 25.4 mm)	20 to 47	All	All	1000	245 x 120 x 65
				1000	
				1000	
	53 to 75			500	
	84 to 96			250	

Note

- The capacitors are supplied in bulk packaging (cardboard boxes).

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