



One of the World's Largest Manufacturers of  
**Discrete Semiconductors and Passive Components**

# VISHAY CERAMIC CAPACITORS

Review of Select Products - 2009

Build **Vishay**  
into your **Design**

## Vishay Ceramic Capacitors

### ■ LOWER-VOLTAGE DISC CAPACITORS (50 VDC to 500 VDC)

- CERA-MITE: Series 561R.., 652R..
- BCc: Series D...
- DRALORIC: Series HSZ.., HSE..



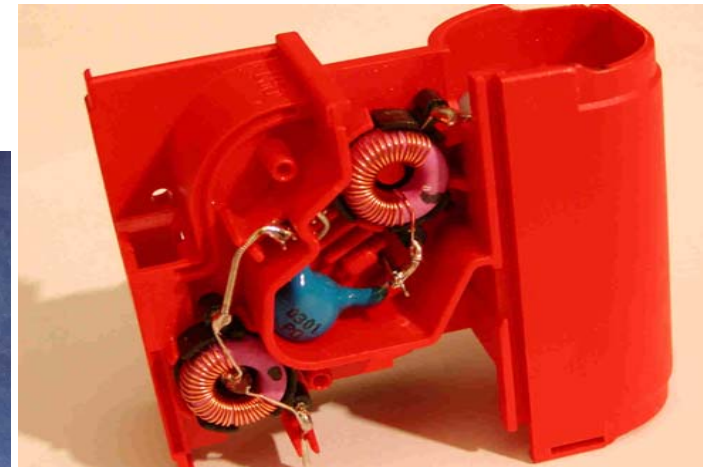
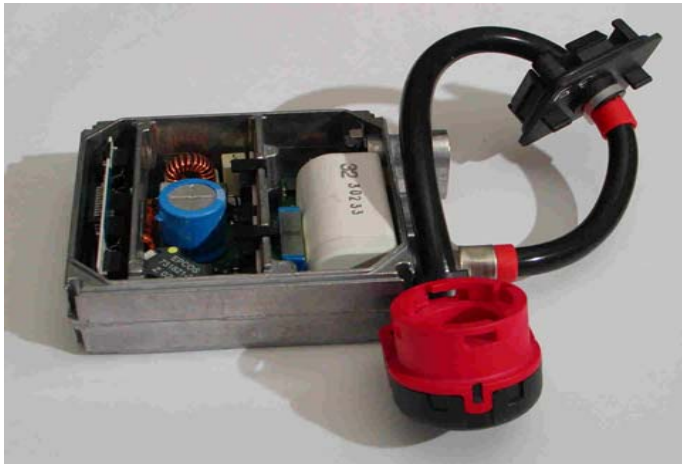
### ■ HIGH-VOLTAGE DISC CAPACITORS (1K VDC to 40K VDC)

- CERA-MITE: Series 564R, 615R, 660C, 715C
- BCc: Series S...
- DRALORIC: Series HFZ.., HIK.., IEL.., (with radial wires)  
HPC, HPD (with screw terminals)



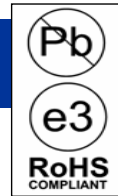
### APPLICATIONS for HV and Pulse Disc Capacitors

- Voltage Multiplier Circuits
- X-Ray Technology
- Copy Machines
- Laser Excitation
- Filtering in Xenon Car Headlight Systems



## CERAMIC HV AND PULSE DISC CAPACITORS

### TYPICAL APPLICATION

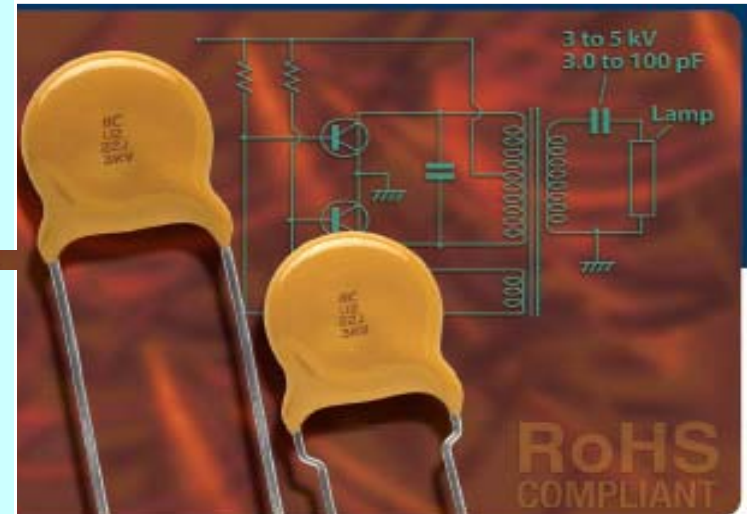


### 3-kV, 4-kV, and 6-kV High-Voltage Disc Capacitor – Backlight Inverter LCD

- Capacitance range : 2.0pF to 150pF
- Rated voltage 3KVDC to 6KVDC
- Operating temperature :  
-55 °C to +125 °C
- Dielectric strength : 150% of Vrated + 500Vdc (5kV)

#### Key Features

- Complies with IEC 60384 - 8
- High reliability
- WEEE/RoHS compliance, acc. EU directive 2002/95/EC
- Outside kink / Inline kink for 3kV



# TYPICAL APPLICATIONS

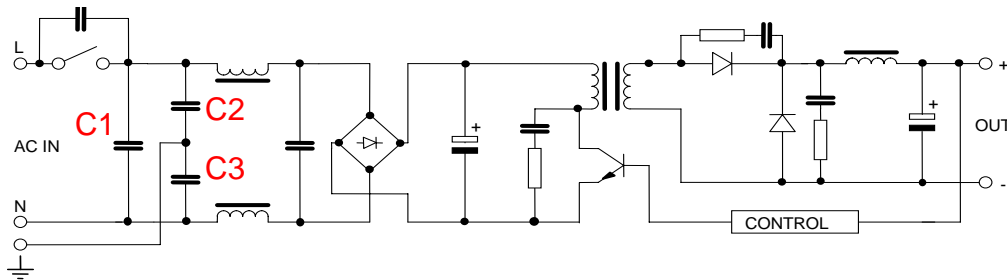
## RFI SUPPRESSION IN SWITCHING MODE POWER SUPPLIES (SMPS)

- Computer power supplies (notebooks)
- Battery chargers for TV, video, audio, handy utilities
- AC/DC adapters

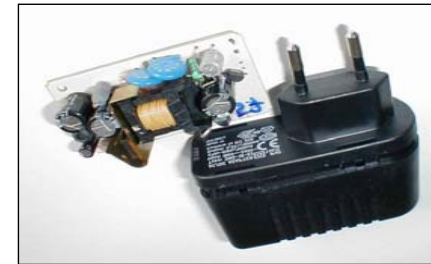
### FUNCTION

**C2/C3:** Line bypass (Y)

**C1:** Across the line (X)



Printer SMPS

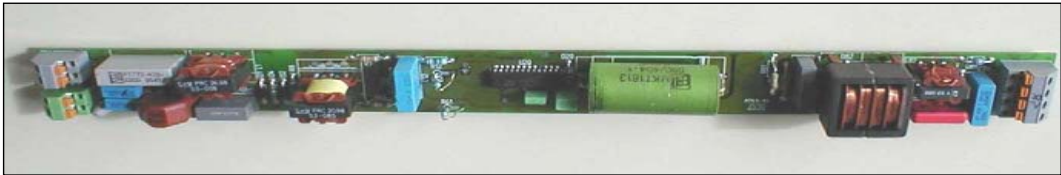
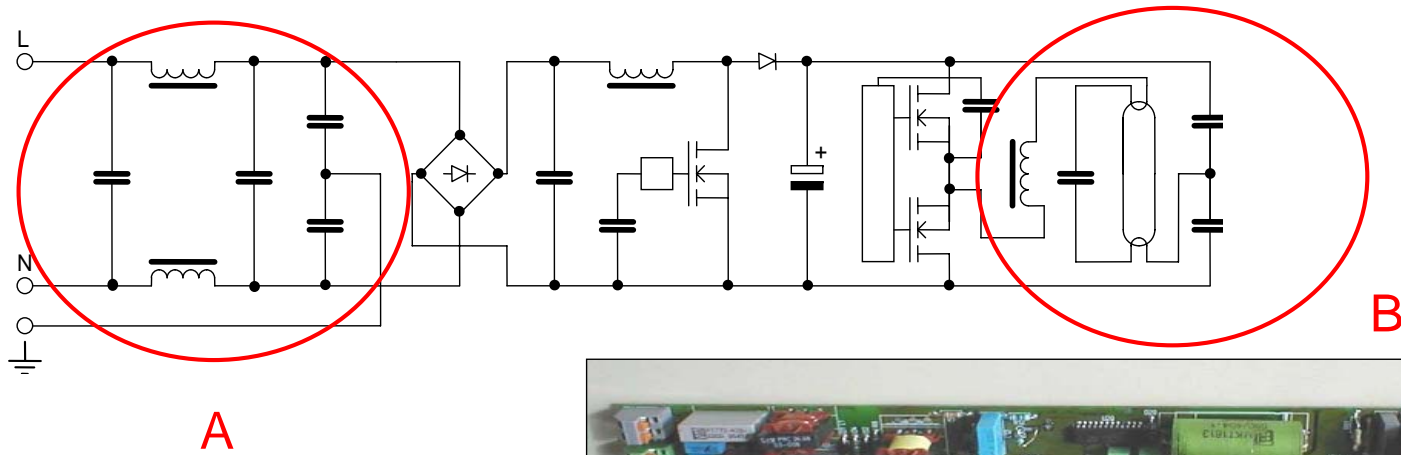


AC/DC Adapter



# TYPICAL APPLICATIONS

## ELECTRONIC FLUORESCENT LIGHTING BALLAST



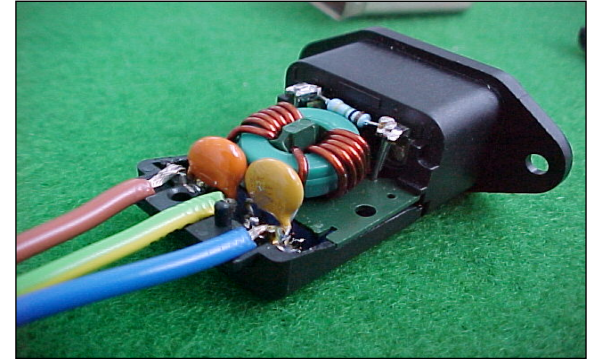
- A) Application for RFI ceramic disc Y- function
- B) Application for low-DF 0.2 % max. 1- to 3-KV ceramic disc (pulse handling)

# TYPICAL APPLICATIONS

## RFI SUPPRESSION IN TV SETS, MONITORS

### FUNCTION

- C1:** Across the line (X)
- C2/C3:** Line bypass (Y)
- C4:** Hot / cold coupling (safety capacitor)



## MOTOR NOISE SUPPRESSION IN: VACUUM CLEANERS HAIR DRYERS ELECTRICAL TOOLS

### FUNCTION

- C1:** Across the line (X)
- C2:** Line bypass (Y)



## AXIAL AND RADIAL DIPPED MLC

### APPLICATIONS

#### **CLASS 1 DIELECTRIC (C0G)**

- Temperature compensation of frequency-discriminating circuits and filters
- Coupling and decoupling in high-frequency circuits where low losses and narrow capacitance tolerances are required

#### **CLASS 2 DIELECTRIC (X7R, Y5V)**

- As coupling and decoupling capacitors in applications where higher losses and a reduced capacitance stability are tolerated and higher capacitance values are required
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### NEW PRODUCTS 2008/2009

- **MONOKAP Radial Leaded (K10 Series):** For filtering and bypass purposes in industrial electronics. Launched



**Halogen-Free Powder Coating:** SOP: Q1 2009 (samples available upon customer request)

- **Molded High-Voltage Types:** Improved HV capacitor with smaller dimensions and expanded voltage and capacitance ranges (e.g., 1400 pF / 20 kV) SOP: Q1 2009 (samples available upon customer request)

