

Automotive Grade Ceramic Capacitors Are Industry's First With Y1 Rating in SMD Casing; Offer Y1 Rating of 500 V_{AC} and 1500 V_{DC} , High Capacitance to 4.7 nF, and High Humidity Robustness

Product Benefits:

- Surface-mount
- Y1 rating of 500 V_{AC} and 1500 V_{DC}
- High capacitance to 4.7 nF
- AEC-Q200 qualified
- PPAP available
- High humidity resistance:
 - Class IIB humidity grade (in accordance with IEC60384-14 annex I)
 - Can withstand the 85 / 85 / 1000 h test
- Available in two case sizes:
 - C case with a creepage distance of 10 mm
 - D case with a creepage distance of 14.5 mm
- RoHS-compliant and halogen-free



Market Applications:

 EMI / RFI suppression and filtering in on-board chargers (OBC), traction inverters, battery management systems (BMS), e-compressors, and AC/DC converters in electric (EV), hybrid electric (HEV), and plug-in hybrid electric (PHEV) vehicles

The News:

Vishay Intertechnology introduces a new series of Automotive Grade AC line rated ceramic disc safety capacitors that are the industry's first with a Y1 rating to be offered in a surface-mount casing. Combining their Y1 rating of $500~V_{AC}$ and $1500~V_{DC}$ with high capacitance to 4.7 nF, the Vishay BCcomponents SMDY1 Automotive Series devices are designed to provide EMI / RFI suppression and filtering in harsh, high humidity environments.

- Allowing for surface-mount assembly with a reflow soldering process, SMDY1 Automotive Series capacitors reduce production costs
- Unlike leaded components, the devices offer a low, flat profile on the PCB to enable flat casings or backside PCB mounting without the clearance space required by through-hole capacitors
- The components consist of a copper-plated ceramic disc and feature encapsulation made of flame-resistant epoxy resin in accordance with UL 94 V-0



The Key Specifications:

| Series | SMDY1 Automotive Series | |
|----------------------------|-------------------------|---------|
| Ceramic class | 2 | |
| Ceramic dielectric | Y5U | |
| Voltage (V _{AC}) | Y1: 500 | X1: 760 |
| | (1500 V _{DC}) | |
| Min. capacitance (pF) | 470 | |
| Max. capacitance (pF) | 4700 | |
| Capacitance tolerance (%) | ± 20 | |
| Mounting | Surface-mount | |

Availability:

Samples and production quantities of the SMDY1 Automotive Series are available now, with lead times of 12 weeks.

To access the product datasheet on the Vishay Website, go to http://www.vishay.com/ppg?28582 (SMDY1 Automotive Series)

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