

193 PUR-SI Series of Snap-in Power Aluminum Electrolytic Capacitors Extended With Voltage Ratings of 550 V and 600 V; Space- and Cost-Saving Devices Offer Ripple Current to 3.27 A and Useful Life of 5000 Hours at +105 °C

Product Benefits:

- Rated voltages up to 600 V
- High ripple current up to 3.27 A
- Long useful life of 5000 hours at +105 °C
- Cylindrical aluminum case insulated with a blue sleeve
- Capacitance from 47 μ F to 820 μ F
- Available in 25 compact case sizes ranging from 22 mm by 25 mm to 35 mm by 60 mm
- Available with 3-pin keyed polarity snap-in terminals for more stable PCB mounting
- Polarized aluminum electrolytic capacitors with a non-solid electrolyte
- RoHS-compliant



Market Applications:

- Smoothing, buffering, and DC-Link filtering in switch mode power supplies; chargers, battery management systems (BMS), and motor controls in electric (EV) and hybrid electric (HEV) vehicles; industrial motor drives and air conditioners; solar inverters; medical equipment; UPS; and welding equipment

The News:

Vishay Intertechnology has extended its 193 PUR-SI series of miniature snap-in power aluminum electrolytic capacitors with new voltage ratings of 550 V and 600 V. The Vishay BCcomponents devices deliver up to 30 % higher ripple current than standard solutions in similar case sizes and offer a longer useful life.

- Traditionally, designers have used three 400 V to 450 V capacitors in series, with voltage balancing resistors across each device, to handle DC bus voltages up to 1100 V – an approach that adds design complexity and potential failure points. With their higher voltage ratings up to 600 V, the enhanced 193 PUR-SI series devices allow designers to achieve this voltage range with fewer components, while eliminating the need for voltage balancing circuits – saving PCB space and reducing BOM costs. In addition, the added voltage headroom extends capacitor lifetimes and enhances overall system reliability
- The capacitors are designed to withstand the demanding switching currents of today's high power converters
- The devices long useful life permits use in demanding applications requiring more than 25 years of operation from capacitors in ambient temperatures up to +60 °C



The Key Specifications:

Case size (D x L in mm)	22 x 25 to 35 x 60	
Capacitance range	47 μ F to 820 μ F	
Tolerance	$\pm 20 \%$	
Rated voltage	400 V to 450 V	500 V to 600 V
Category temperature range	-40 °C to +105 °C	
Useful life at +105 °C	5000 h	
Max. ESR at 100 Hz	120 m Ω to 3365 m Ω	
Max. impedance at 10 kHz	80 m Ω to 2700 m Ω	
Sectional specification	IEC 60384-4 / EN130300	
Climatic category IEC 60038	40 / 105 / 56	25 / 105 / 56

Availability:

Samples of the extended 193 PUR-SI series capacitors are available from catalog houses in small quantities. Production quantities are available now, with lead times of 18 weeks.

To access the product datasheet on the Vishay Website, go to <http://www.vishay.com/ppg?28458> (193 PUR-SI)

Contact Information:

THE AMERICAS

Walter Bonomo
Walter.Bonomo@Vishay.com

EUROPE

Franz Grauf
Franz.Grauf@vishay.com

ASIA/PACIFIC

Stanley Chan
Stanley.Chan@Vishay.com