Integrated Capacitor/bus assembly
135 µF, 900 Vdc with DuPont Teijin PEN HV™ film for operation to 125°C

The 906A13799-104 Power Ring assembly is a 135 µF, 900 Vdc dual-winding DC Link Capacitor integrated with a laminar bus. The assembly has an ESR of 850 µΩ at 20kHz, an ESL of less than 8nH and a life of more than 10,000 hours at a typical drive cycle for an 80-120 kW inverter.

Electrical Specifications

- **SBE Part #:** 906A13799-104
- **Capacitance/Tolerance:** 135 µF ±10%
- **Dielectric:** Metallized high temp film
- **ESL at IGBT Terminals:** Less than 8 nH
- **Continuous DC Voltage:** 900 Vdc up to 125°C (derate linearly from 900 Vdc to 540 Vdc from 125°C to 150°C hotspot)
- **Typical ESR vs. Frequency:** 850 µΩ at 20 kHz
- **Maximum DC Voltage:** Units 100% tested at DC voltage of 1,125 Vdc for 2 minutes at 25°C
- **Operating Temperature:** -40°C to +125°C
- **Maximum Peak Current:** 250 Arms (not to exceed 2 minutes and 130°C hotspot at 900 Vdc)
- **Operating Ranges**
  - (Typical Drive Cycle): 850 V < Vdc < 950 V
  - 75 Arms < I_{ripple} < 150 Arms
  - 50°C < T_{coolant} < 125°C

Mechanical Specifications

- **Dimensions:** See layout drawing for details
- **Bus Structure:** Tin plated copper, 0.060” (1.50 mm) thick
- **Packaging:** Polycarbonate enclosure encapsulated with RTV
- **IGBT Connection Type:** Thru-hole connections for Infineon HYBRIDPACK™ Drive Module
- **Construction:** Dual windings integrated to a laminar bus

Ripple current versus average case temperature to achieve 10,000 hour life for continuous operation.
Marking:

SBE  SBE company identification
906A104  SBE “short form” part number
135 µF ±10%  Capacitance value and
tolerance
900 Vdc  DC voltage rating
yyww-lot#-unit  Serial number (date code,
lot number, unit number)

Layout Details:

Contact SBE Inc. to discuss your specific requirements.