

### Integrated capacitor/bus assembly

*These high-performance DC Link capacitors are optimized for use with the **Infineon** Hybrid Pack DRIVE™ family of six pack modules. They are also compatible with the **onsemi** VE-Trac™, and the **ST Microelectronics** ACEPACK DRIVE™.*

*These parts provide low ESL for fast switching of Si and SiC devices and the low ESR enables high power density.*



### Mechanical Specifications:

<b>Dimensions:</b>	See layout drawing for details
<b>Bus Structure:</b>	Tin plated copper, 0.060" (1.50mm) thick, pressed in bushings
<b>Packaging:</b>	Polycarbonate enclosure encapsulated with RTV
<b>Connection Type:</b>	Thru-hole bushing connections for six pack modules
<b>Construction:</b>	Dual windings integrated with a laminar bus

### Part Series

These parts are available with polypropylene film for operation up to 105°C and with Kaladex® PEN HV for operation up to 135°C. The dielectric is specified by the part series as shown in the table below:

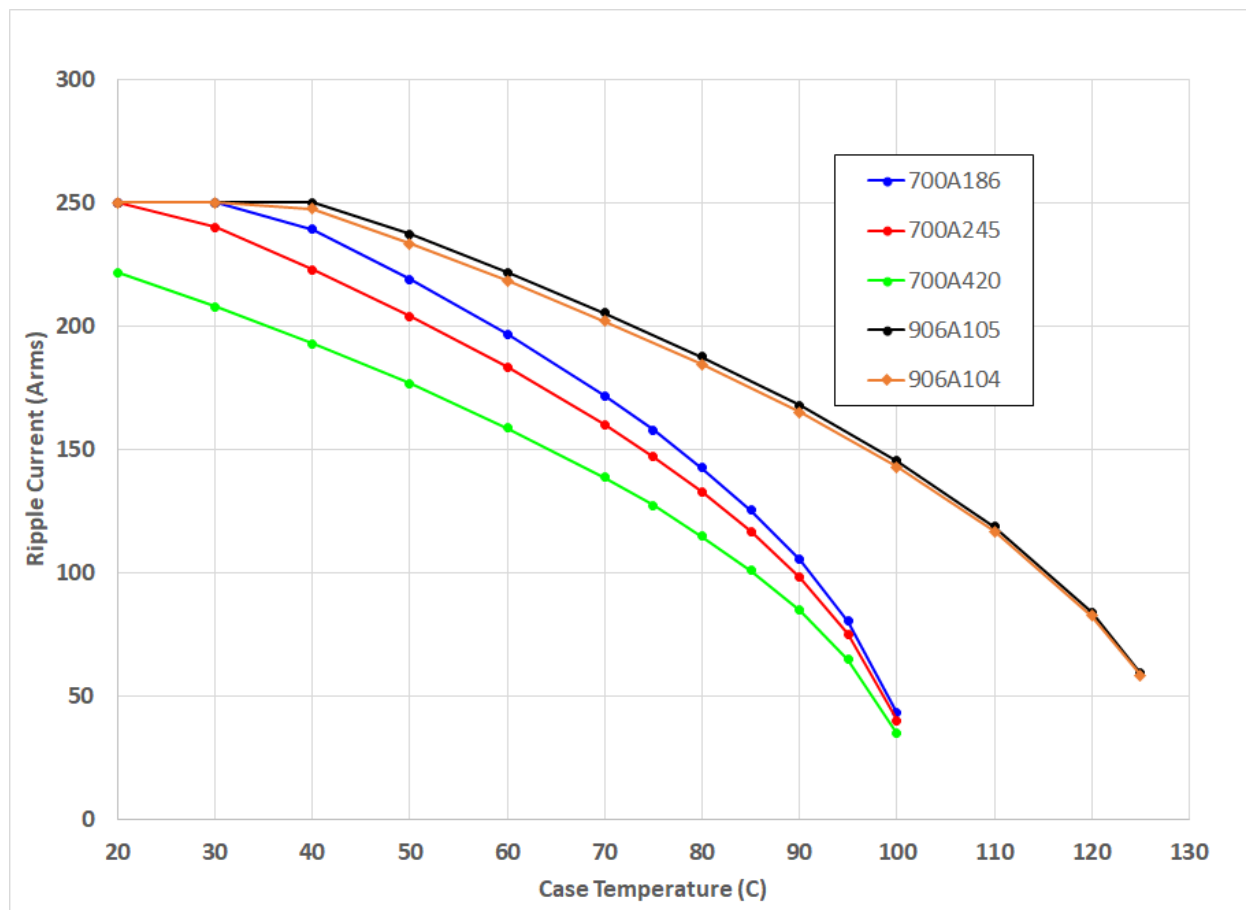
Part Series	Film Type
700A	MPP
906A	PHV

### Detailed Specifications:

Part Number*	700A186	700A245	700A420	906A105	906A104
<b>Dielectric</b>	Polypropylene metallized film	Polypropylene metallized film	Polypropylene metallized film	Kaladex® PEN HV metallized film	Kaladex® PEN HV metallized film
<b>DC Voltage Rating (nominal)*</b>	500 Vdc	750 Vdc	900 Vdc	750 Vdc	900 Vdc
<b>Capacitance/Tolerance*</b>	500µF ±10%	260µF ±10%	260µF ±10%	320 µF ±10%	135 µF ±10%
<b>Typical ESR @ 20kHz</b>	410 µΩ	530 µΩ	900 µΩ	840 µΩ	850 µΩ
<b>ESL at Module Terminals</b>	Less than 8nH	Less than 8nH	Less than 8nH	Less than 8nH	Less than 8nH
<b>Continuous DC Voltage Rating</b>	500 Vdc up to 85°C	750 Vdc up to 85°C	900 Vdc up to 85°C	750 Vdc up to 125°C	900 Vdc up to 125°C
<b>Voltage De-rating (linear)</b>	500 Vdc @ 85°C to 300Vdc @ 105°C hotspot	750 Vdc @ 85°C to 450 Vdc @ 105°C hotspot	900 Vdc @ 85°C to 600 Vdc @ 105°C hotspot	750 Vdc @ 125°C to 450 Vdc @ 150°C hotspot	900 Vdc @ 125°C to 540 Vdc @ 150°C hotspot
<b>Dielectric Withstand Test Voltage (100% of units)</b>	600 Vdc for 2 minutes at 25°C	950 Vdc for 2 minutes at 25°C	1150 Vdc for 2 minutes at 25°C	940 Vdc for 2 minutes at 25°C	1125 Vdc for 2 minutes at 25°C
<b>Operating Temperature</b>	-40°C to +105°C	-40°C to +105°C	-40°C to +105°C	-40°C to +125°C	-40°C to +125°C
<b>Maximum Peak Current</b>	250 Arms (not to exceed 2 minutes and 85°C hotspot at 500 Vdc)	200 Arms (not to exceed 2 minutes and 85°C hotspot at 750 Vdc)	150 Arms (not to exceed 2 minutes and 85°C hotspot at 900 Vdc)	250 Arms (not to exceed 2 minutes and 130°C hotspot at 750 Vdc)	250 Arms (not to exceed 2 minutes and 130°C hotspot at 900 Vdc)
<b>Operating Ranges (Typical Drive Cycle)</b>	350 V < Vdc < 550 V 75A <sub>rms</sub> < I <sub>ripple</sub> < 125A <sub>rms</sub> 50°C < T <sub>coolant</sub> < 85°C	600 V < Vdc < 800 V 75A <sub>rms</sub> < I <sub>ripple</sub> < 125A <sub>rms</sub> 50°C < T <sub>coolant</sub> < 85°C	650 V < Vdc < 950 V 75A <sub>rms</sub> < I <sub>ripple</sub> < 125A <sub>rms</sub> 50°C < T <sub>coolant</sub> < 85°C	600 V < Vdc < 800 V 75A <sub>rms</sub> < I <sub>ripple</sub> < 150A <sub>rms</sub> 50°C < T <sub>coolant</sub> < 125°C	650 V < Vdc < 950 V 75A <sub>rms</sub> < I <sub>ripple</sub> < 150A <sub>rms</sub> 50°C < T <sub>coolant</sub> < 125°C
<b>Company Identification*</b>	APCS	APCS	APCS	APCS	APCS
<b>Serial Number*</b> (date code, lot number, unit number)	yyww-lot#-unit	yyww-lot#-unit	yyww-lot#-unit	yyww-lot#-unit	yyww-lot#-unit

\*Indicates information included on the part label.

### RMS Current Rating Curves:



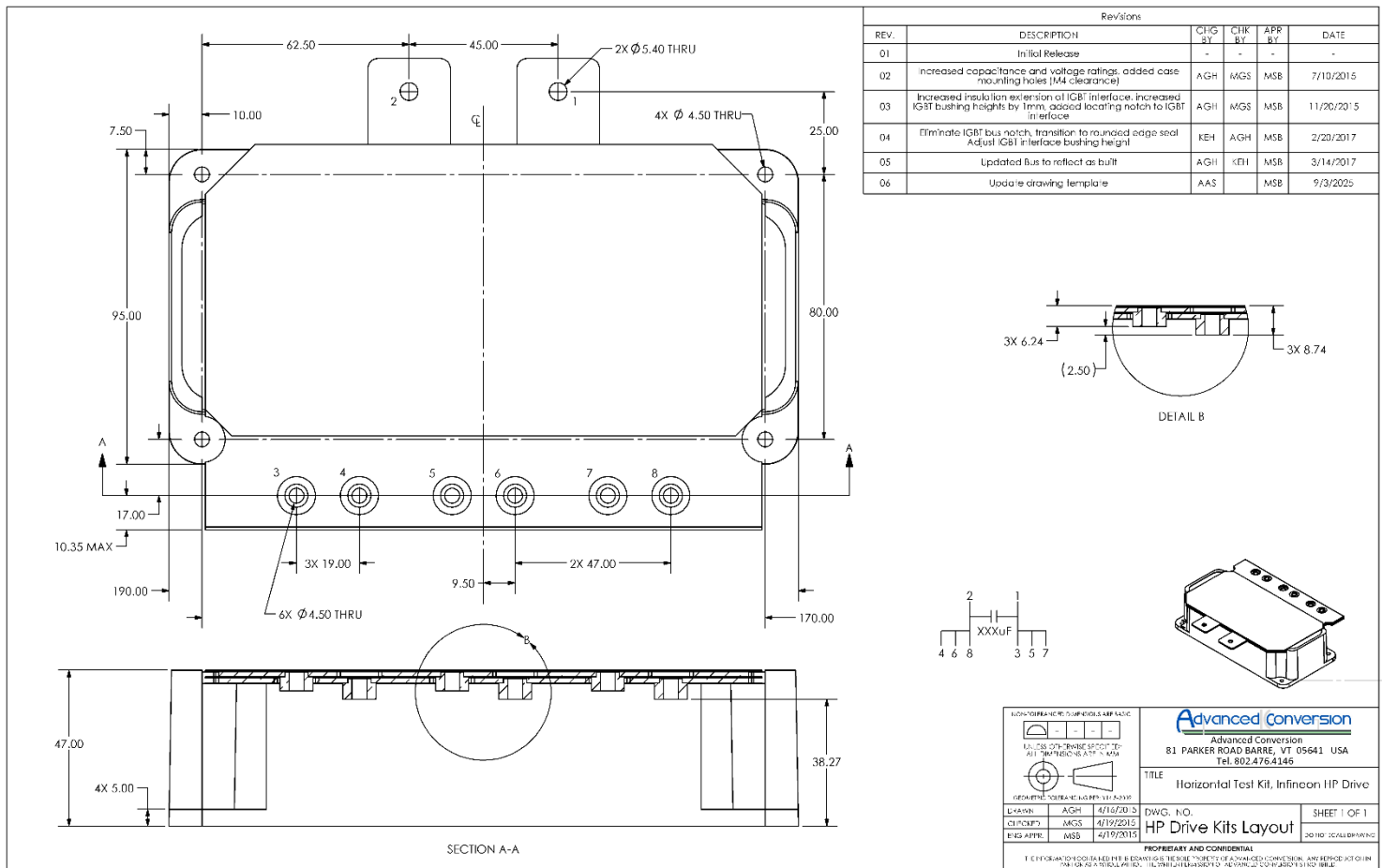
Ripple current versus case temperature for 10,000 hour life with a typical drive cycle and the average operating voltages listed below:

700A186: 450 Vdc

700A245 and 906A105: 675 Vdc

700A420 and 906A104: 800 Vdc

### Layout Details:



Advanced Conversion reserves the right to amend this datasheet without notice.

Revision Table		
Revision	Description	Date
Rev 1	Initial release	9/4/25