Power Ring Film Capacitors

Power Ring Film Capacitor

700D651

700D652

700D717

700D718

700D719

This part series features a single metalized polypropylene winding (single section) that is encapsulated in a case. This part series has terminal feet that face inward for a reduced footprint.

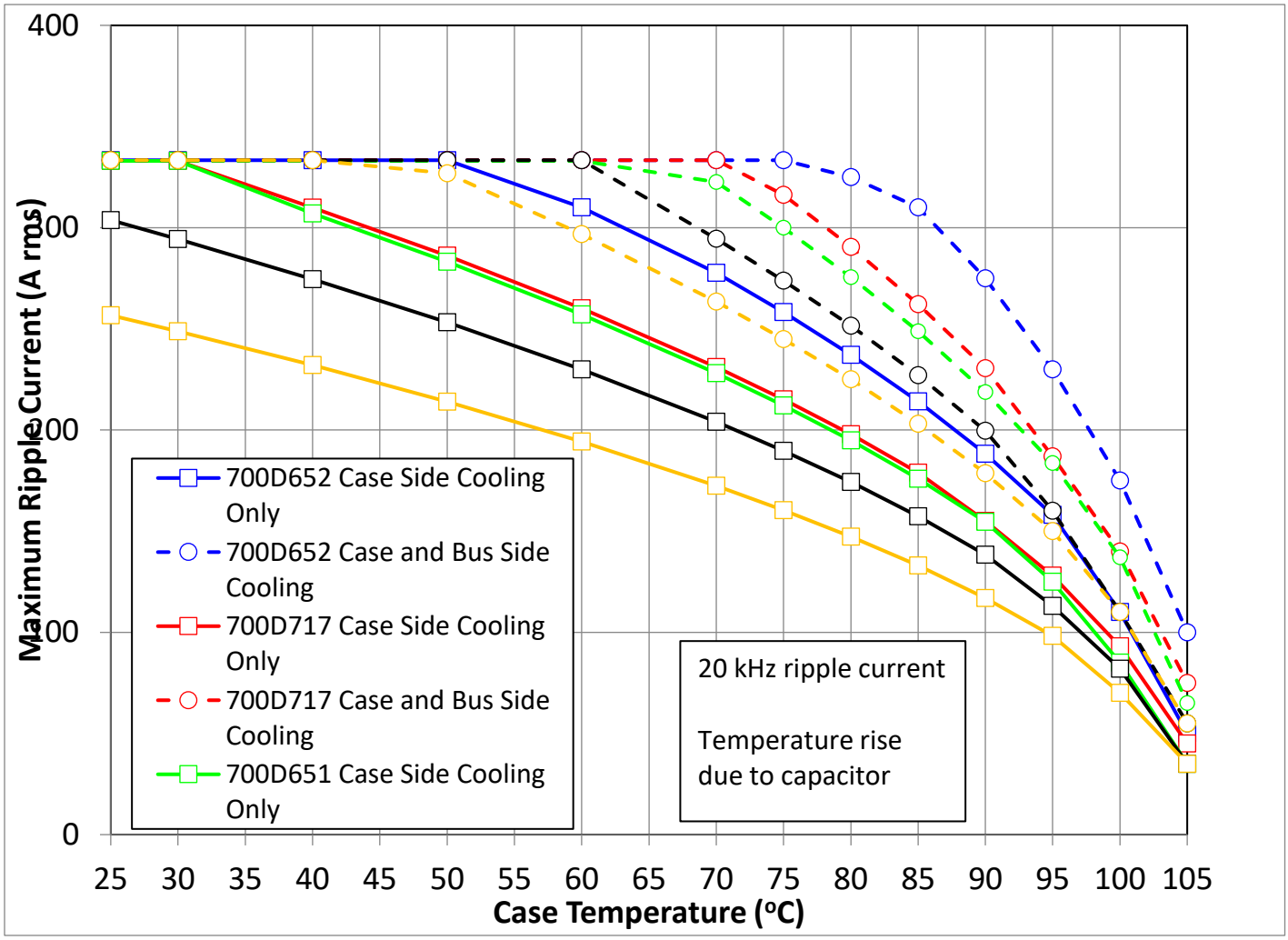
Electrical/Thermal Specifications:

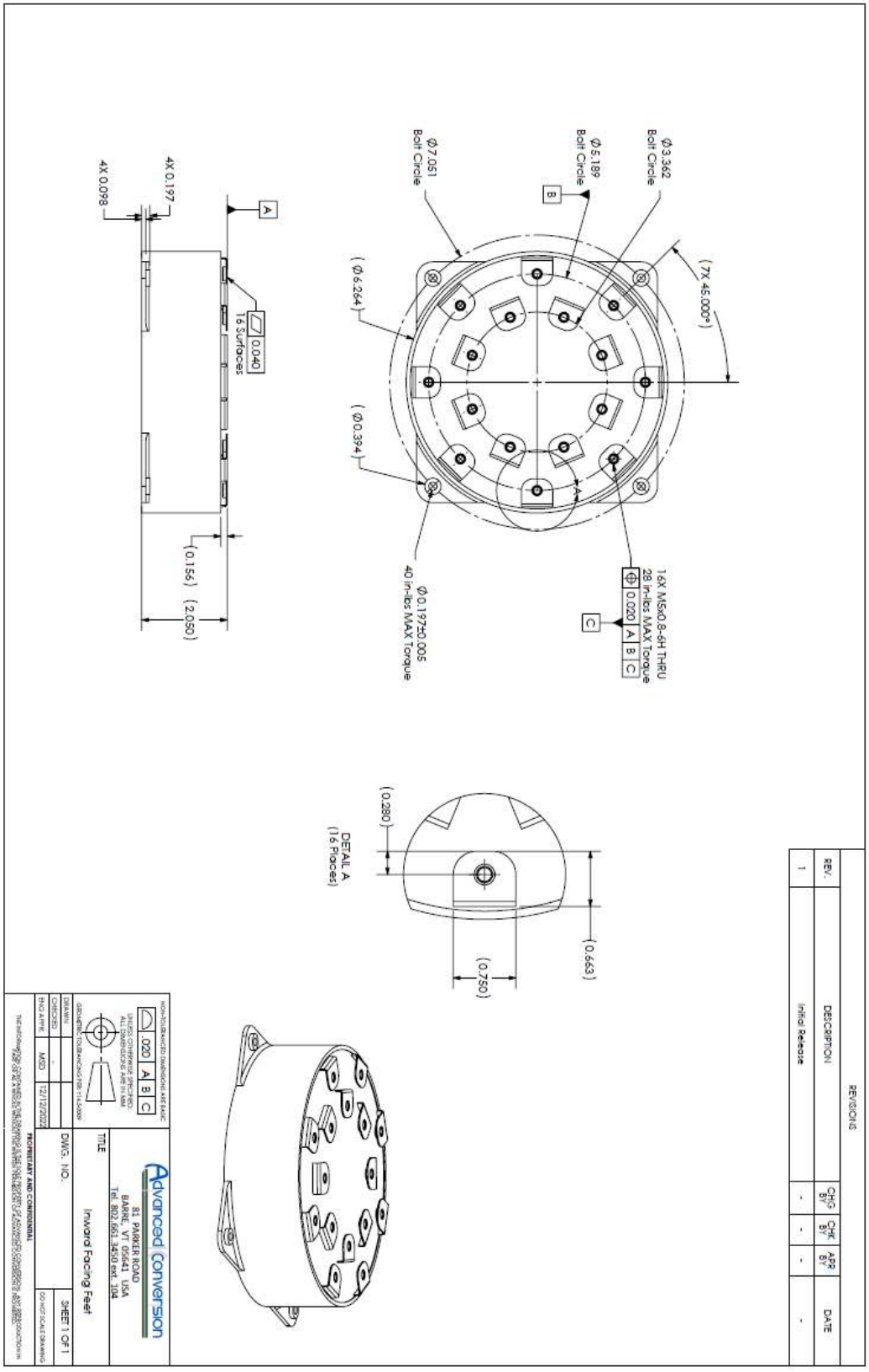
PN	700D652	700D717	700D651	700D718	700D719	*Notes*
CAP uF (±10%)	500	500	215	115	75	
DC Voltage Rating	600	700	900	1200	1500	
System Fault current rating (Amps)	10,000	10,000	6,500	5,000	4,000	
Voltage, Temperature De-Rating (XXX), Volts	400	500	700	800	1300	De-rate voltage linearly to De-rating: XXX Volts from +85°C to +107°C, with respect to hotspot temperature
Dielectric Withstand Voltage	Units 100% tested at DC potential of 120% of rated voltage for two minutes at 25°C					
ESR (Micro-Ohms)	250	390	350	500	570	At 20kHz and an ESL of less than 5nH
ESL	Less than 5 nH in a suitable laminar bus structure					
Operating Temperature	-40°C to +85°C at full DC voltage rating					

Mechanical Mounting and Additional Thermal Notes:

This capacitor is optimized for extremely low self inductance when connected to a suitable laminar bus structure. When so connected, the capacitor is very rigidly attached to such a structure and thus does not necessarily need to be mounted to a chassis. However, the capacitor case can be attached to an application surface/heat sink, etc. if desired. When so mounted, the capacitor can be part of the bus structure support. Use of thermal interface compound between the capacitor case and application surface/heat sink will assist with removal of capacitor and bus heat. Note that the capacitor internal heating is VERY small, and other bus structure heat sources are very likely significantly higher than the heat added to the bus by the capacitor. Capacitor dissipation is approximately 2.5W at 100Arms, from 1-100KHz. It is highly recommended to use infrared thermal imaging from a system cold start to determine the location and relative magnitude of thermal input to the bus. The capacitor may well function as a thermal conduit for bus structure heat, and it will be very possible that the capacitor internal hot spot is less than the terminal temperature. Thermal contour maps are available for some representative conditions.

RMS Current Rating:




Ø3.362
Bolt Circle
Ø5.189
Bolt Circle
Ø7.051
Bolt Circle
(7X 45.000°)
(Ø6.264)
(Ø0.394)
16X M5x0.8-6H THRU
28 in-lbs MAX Torque
Ø0.197±0.005
40 in-lbs MAX Torque
4X 0.197
4X 0.098
16 Surfaces
0.040
(0.156)
(2.050)
DETAIL A
(16 Places)
(0.280)
(0.663)
(0.750)
REVISIONS
REV.
DESCRIPTION
CHG BY
CHK BY
APP BY
DATE
Initial Release
Advanced Conversion
81 PARKER ROAD
BARRE, VT 05641 USA
Tel 802.661.3450 ext. 104
TITLE
Inward Facing Feet
DWG. NO.
SHEET 1 OF 1
PROPRIETARY AND CONFIDENTIAL