

U787D Series

U787D SERIES
Engineering Bulletin Mar 07



U787D
LARGE TUBULARS 150°C

- Large Tubulars
- Very High +150°C Temperature
- Designed For Automotive 36V and 42V Systems
- Vibration Resistant
- Optional Low Profile Mounting



The U787D series, the industry's first 150°C aluminum electrolytic, offers a voltage range of 6.3 to 80VDC, high capacitance and high ripple current capability. The U787D series is the optimum solution for reducing the size, weight and cost of high performance automotive 36V and 42V systems. These capacitors maintain a continuous 2,000 hour, 150°C load life (8,000 hours at 125°C with the 150°C rated ripple current applied) and are high vibration resistant. The U787D capacitors are available in either the standard three lead (keyed polarity) radial vertical mounting or the optional low profile three formed lead horizontal mounting style. Custom designs are available upon request.

The U787D capacitors are *not* solvent proof. Refer to guidelines and precautions on the website for usage and installation conditions recommended for United Chemi-Con products.

Summary of Specifications

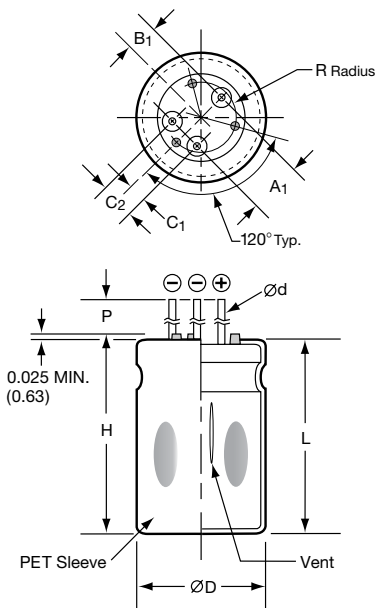
- 3 radial leads for vertical mount; optional 3 formed leads for horizontal mount.
- Capacitance range: 180 to 47,000µF.
- Voltage range: 6.3 to 80VDC.
- Category temperature range: -55°C to +150°C.
- Leakage current in µA: $I = K\sqrt{CV}$: K = 0.5 at +25°C, 6.5 at +150°C after 5 minutes.
- Standard capacitance tolerance: ±20%
- Nominal case size (D × L): 19 × 29mm to 25 × 92mm.
- Rated lifetime: 2,000 hours at +150°C with rated ripple current applied and 8,000 hours at +125°C with +150°C rated ripple current applied.

U787D Specifications - Large Tubulars

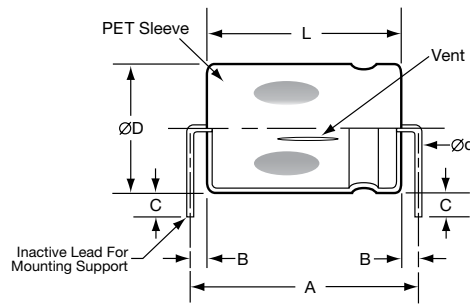
Item	Characteristics														
Category Temperature Range	– 55 to +150°C														
Rated Voltage Range	6.3 to 80VDC														
Capacitance Range	180 to 47,000μF at +25°C, 120Hz														
Capacitance Tolerance	±20% (M) at +25°C, 120Hz														
Vibration Rating	10-1,000Hz, 20g, sinusoidal (10-2,000Hz, 40g, sinusoidal available upon request)														
Leakage Current	$I = K\sqrt{CV}$: K = 0.5 at +25°C, 6.5 at +150°C after 5 minutes. Where I = Max. leakage current (μA), C = Nominal capacitance (μF) and V = Rated voltage (V)														
Rated Ripple Current Multipliers	Ambient Temperature (°C) <table><tr><td>+85°C</td><td>+105°C</td><td>+125°C</td><td>+150°C</td></tr><tr><td>1.50</td><td>1.25</td><td>1.00</td><td>0.45</td></tr></table> Frequency (Hz) <table><tr><td>300Hz</td><td>1kHz</td><td>20k-100kHz</td></tr><tr><td>0.75</td><td>0.82</td><td>1.00</td></tr></table>	+85°C	+105°C	+125°C	+150°C	1.50	1.25	1.00	0.45	300Hz	1kHz	20k-100kHz	0.75	0.82	1.00
+85°C	+105°C	+125°C	+150°C												
1.50	1.25	1.00	0.45												
300Hz	1kHz	20k-100kHz													
0.75	0.82	1.00													
Endurance (Load Life)	The following specifications shall be satisfied when the capacitors are restored to +25°C after subjecting them to the DC rated voltage for 2,000 hours at +150°C with the rated ripple current applied. The sum of the DC voltage and peak AC voltage must not exceed the full rated voltage of the capacitors. Capacitance change: ≤ 15% from initial measurement ESR change : ≤ 200% of initial specified limit Impedance change : ≤ 200% of initial specified limit Leakage current : ≤ initial specified limit														
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to +25°C after exposing them for 1,000 hours at +150°C without voltage applied. The rated voltage shall be applied to the capacitors for a minimum of 30 minutes, at least 24 hours and not more than 48 hours before the measurements. Capacitance change: ≤ 10% from initial measurement ESR change : ≤ 150% of initial specified limit Leakage current : ≤ initial specified limit														

Diagram of Dimensions - Large Tubulars

VGS Vertical Mount for 3 Lead Keyed Polarity Radial (Standard)

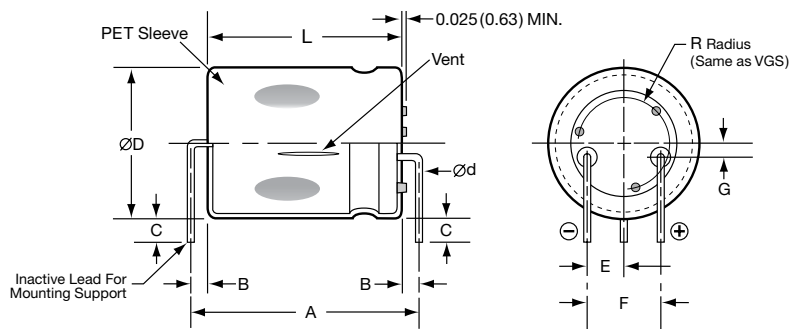


VTX Horizontal Mount for Ø0.750 (Ø19.0)



Unit: inches (mm)

VTX Horizontal Mount for Ø0.875 and Ø1.000 (Ø22.2 and Ø25.4)



VGS Lead Spacing in Inches

ØD Diameter	A1 ±0.015	B1 ±0.020	C1 ±0.015	C2 ±0.020	P ±0.015	R ±0.004
0.750	0.300	0.167	0.100	0.200	0.250	0.203
0.875	0.400	0.228	0.150	0.300	0.250	0.265
1.000	0.400	0.228	0.150	0.300	0.250	0.328

VGS Lead Spacing in Millimeters

ØD Diameter	A1 ±0.40	B1 ±0.50	C1 ±0.40	C2 ±0.50	P ±0.40	R ±0.10
19.0	7.6	4.2	2.5	5.1	6.3	5.2
22.2	10.2	5.8	3.8	7.6	6.3	6.7
25.4	10.2	5.8	3.8	7.6	6.3	8.3

VTX Lead Spacing in Inches

ØD Diameter	A ±0.040	B ±0.020	C ±0.020	E ±0.020	F ±0.020	G ±0.020
0.750	L+0.255	0.100	0.138	0.125	0.250	—
0.875	L+0.255	0.100	0.138	0.213	0.425	0.080
1.000	L+0.255	0.100	0.138	0.213	0.425	0.080

VTX Lead Spacing in Millimeters

ØD Diameter	A ±1.00	B ±0.50	C ±0.50	E ±0.50	F ±0.50	G ±0.50
19.0	L+6.5	2.5	3.5	3.2	6.4	—
22.2	L+6.5	2.5	3.5	5.4	10.8	2.0
25.4	L+6.5	2.5	3.5	5.4	10.8	2.0

VGS and VTX Dimensions in Inches

Case Size Code	ØD ±0.040 With Sleeve	L +0.080 With Sleeve	H +0.080 With Standoffs	Ød ±0.004 Terminal Diameter	Typical Weight (ounces)
T29 T35 T41 T54 T67 T79	0.750	1.125 1.375 1.625 2.125 2.625 3.125	1.165 1.415 1.665 2.165 2.665 3.165	0.040	0.458 0.635 0.811 0.988 1.164 1.340
P29 P35 P41 P54 P67 P79	0.875	1.125 1.375 1.625 2.125 2.625 3.125	1.165 1.415 1.665 2.165 2.665 3.165	0.040	0.635 0.881 1.093 1.340 1.587 1.834
Q29 Q35 Q41 Q54 Q67 Q79 Q92	1.000	1.125 1.375 1.625 2.125 2.625 3.125 3.625	1.165 1.415 1.665 2.165 2.665 3.165 3.665	0.040	0.811 0.988 1.129 1.446 1.764 2.081 2.399

VGS and VTX Dimensions in Millimeters

Case Size Code	ØD ±1.00 With Sleeve	L +2.00 With Sleeve	H +2.00 With Standoffs	Ød ±0.10 Terminal Diameter	Typical Weight (grams)
T29 T35 T41 T54 T67 T79	19.0	29.0 35.0 41.0 54.0 67.0 79.0	30.0 36.0 42.0 55.0 68.0 80.0	1.00	13 18 23 28 33 38
P29 P35 P41 P54 P67 P79	22.2	29.0 35.0 41.0 54.0 67.0 79.0	30.0 36.0 42.0 55.0 68.0 80.0	1.00	18 25 31 38 45 52
Q29 Q35 Q41 Q54 Q67 Q79 Q92	25.4	29.0 35.0 41.0 54.0 67.0 79.0 92.0	30.0 36.0 42.0 55.0 68.0 80.0 93.0	1.00	23 28 32 41 50 59 68

Part Numbering System for U787D Series

When ordering, always specify complete 18-field global part number.



- 9 Supplement Code.** Field 18.
C = PET sleeve, SnPb terminal plating.
- 8 Case Size.** Fields 15, 16 and 17.
The single letter diameter code is inserted in field 15.
T = Ø0.750" (Ø19mm)
P = Ø0.875" (Ø22mm)
Q = Ø1.000" (Ø25.4mm)
The double digit length code is inserted in fields 16 and 17.
29 = 1.125" (29mm)
35 = 1.375" (35mm)
41 = 1.625" (41mm)
54 = 2.125" (54mm)
67 = 2.625" (67mm)
79 = 3.125" (79mm)
92 = 3.625" (92mm)
- 7 Capacitance Tolerance.** Field 14.
M = ±20%
- 6 Capacitance.** Fields 11, 12 and 13.
Expressed in Microfarads. The first two digits are significant figures inserted in fields 11 and 12, and the third digit inserted in field 13 indicates the number of zeros for capacitance of 10µF or more. R indicates the decimal point for capacitance less than 10µF (e.g. 1R8 = 1.8µF; 180 = 18µF; 181 = 180µF; 182 = 1,800µF; 183 = 18,000µF).
- 5 Lead Cut/Forming.** Field 10.
S = 3 straight leads, 0.250" (6.3mm) in length.
X = 3 formed leads, 2 radial and 3rd lead axial.
- 4 Terminal Type.** Fields 8 and 9.
VG = 3 lead keyed polarity radial, vertical mount.
VT = 3 formed lead axial, horizontal mount.
- 3 DC Rated Voltage.** Fields 5, 6 and 7.
Expressed in Volts. The first two digits are significant figures inserted in fields 5 and 6, and the third digit inserted in field 7 indicates the number of zeros for rated voltage of 10VDC or more. R indicates the decimal point for rated voltage less than 10VDC (e.g. 6R3 = 6.3VDC; 630 = 63VDC; 631 = 630VDC).
- 2 Series Name.** Fields 2, 3 and 4.
Enter the 3-letter/digit series name in fields 2, 3 and 4. If the series name is only 2 letters/digits, place a dash in field 4.
For a series name with more than 3 letters/digits, refer to the individual series for the appropriate 3-field series name.
- 1 Capacitor Type.** Field 1.
Aluminum Electrolytic Capacitor (Polar).

Standard Voltage Ratings - Large Tubulars

Rated Voltage (WVDC)	Capacitance (μF)	Global Part Number†	Nominal Case Size* D × L (inches)	Case Size Code	Maximum ESR (mΩ) at +25°C 20k-100kHz	Maximum Impedance (mΩ) at +25°C, 100kHz	Rated Ripple Current (A rms) at +125°C, 20kHz
6.3 Volts 8 Volts Surge	3,300	E7876R3VGS332MT29C	0.750 × 1.125	T29	58.1	63.8	5.3
	5,600	E7876R3VGS562MT35C	0.750 × 1.375	T35	45.5	49.0	6.5
	6,800	E7876R3VGS682MT41C	0.750 × 1.625	T41	32.9	34.1	7.6
	10,000	E7876R3VGS103MT54C	0.750 × 2.125	T54	23.5	24.2	9.5
	15,000	E7876R3VGS153MT67C	0.750 × 2.625	T67	18.9	19.8	11.3
	18,000	E7876R3VGS183MT79C	0.750 × 3.125	T79	16.1	16.5	13.5
	4,700	E7876R3VGS472MP29C	0.875 × 1.125	P29	38.9	39.6	7.0
	8,200	E7876R3VGS822MP35C	0.875 × 1.375	P35	29.6	30.3	8.7
	10,000	E7876R3VGS103MP41C	0.875 × 1.625	P41	20.3	20.9	10.3
	15,000	E7876R3VGS153MP54C	0.875 × 2.125	P54	14.3	14.3	13.3
	22,000	E7876R3VGS223MP67C	0.875 × 2.625	P67	11.3	12.1	15.4
	27,000	E7876R3VGS273MP79C	0.875 × 3.125	P79	9.7	9.9	18.5
	6,800	E7876R3VGS682MQ29C	1.000 × 1.125	Q29	30.0	30.8	8.3
	12,000	E7876R3VGS123MQ35C	1.000 × 1.375	Q35	22.9	23.7	10.3
	15,000	E7876R3VGS153MQ41C	1.000 × 1.625	Q41	15.8	16.5	12.3
	22,000	E7876R3VGS223MQ54C	1.000 × 2.125	Q54	11.3	12.1	15.3
	33,000	E7876R3VGS333MQ67C	1.000 × 2.625	Q67	9.2	9.9	17.8
	39,000	E7876R3VGS393MQ79C	1.000 × 3.125	Q79	7.8	8.8	19.1
	47,000	E7876R3VGS473MQ92C	1.000 × 3.625	Q92	7.0	7.7	22.0
10 Volts 13 Volts Surge	2,700	E787100VGS272MT29C	0.750 × 1.125	T29	58.1	63.8	5.3
	3,900	E787100VGS392MT35C	0.750 × 1.375	T35	45.5	49.0	6.5
	5,600	E787100VGS562MT41C	0.750 × 1.625	T41	32.9	34.1	7.6
	8,200	E787100VGS822MT54C	0.750 × 2.125	T54	23.5	24.2	9.5
	10,000	E787100VGS103MT67C	0.750 × 2.625	T67	18.9	19.8	11.3
	15,000	E787100VGS153MT79C	0.750 × 3.125	T79	16.1	16.5	13.5
	3,900	E787100VGS392MP29C	0.875 × 1.125	P29	38.9	39.6	7.0
	5,600	E787100VGS562MP35C	0.875 × 1.375	P35	29.6	30.3	8.7
	8,200	E787100VGS822MP41C	0.875 × 1.625	P41	20.3	20.9	10.3
	12,000	E787100VGS123MP54C	0.875 × 2.125	P54	14.3	14.3	13.3
	15,000	E787100VGS153MP67C	0.875 × 2.625	P67	11.3	12.1	15.4
	22,000	E787100VGS223MP79C	0.875 × 3.125	P79	9.7	9.9	18.5
	5,600	E787100VGS562MQ29C	1.000 × 1.125	Q29	30.0	30.8	8.3
	8,200	E787100VGS822MQ35C	1.000 × 1.375	Q35	22.9	23.7	10.3
	12,000	E787100VGS123MQ41C	1.000 × 1.625	Q41	15.8	16.5	12.3
	18,000	E787100VGS183MQ54C	1.000 × 2.125	Q54	11.3	12.1	15.3
	22,000	E787100VGS223MQ67C	1.000 × 2.625	Q67	9.2	9.9	17.8
	27,000	E787100VGS273MQ79C	1.000 × 3.125	Q79	7.8	8.8	19.1
	33,000	E787100VGS333MQ92C	1.000 × 3.625	Q92	7.0	7.7	22.0
16 Volts 20 Volts Surge	1,800	E787160VGS182MT29C	0.750 × 1.125	T29	58.1	63.8	5.3
	2,700	E787160VGS272MT35C	0.750 × 1.375	T35	45.5	49.0	6.5
	3,900	E787160VGS392MT41C	0.750 × 1.625	T41	32.9	34.1	7.6
	5,600	E787160VGS562MT54C	0.750 × 2.125	T54	23.5	24.2	9.5
	8,200	E787160VGS822MT67C	0.750 × 2.625	T67	18.9	19.8	11.3
	10,000	E787160VGS103MT79C	0.750 × 3.125	T79	16.1	16.5	13.5
	2,700	E787160VGS272MP29C	0.875 × 1.125	P29	38.9	39.6	7.0
	4,700	E787160VGS472MP35C	0.875 × 1.375	P35	29.6	30.3	8.7
	5,600	E787160VGS562MP41C	0.875 × 1.625	P41	20.3	20.9	10.3
	8,200	E787160VGS822MP54C	0.875 × 2.125	P54	14.3	14.3	13.3
	12,000	E787160VGS123MP67C	0.875 × 2.625	P67	11.3	12.1	15.4
	15,000	E787160VGS153MP79C	0.875 × 3.125	P79	9.7	9.9	18.5
	3,900	E787160VGS392MQ29C	1.000 × 1.125	Q29	30.0	30.8	8.3
	5,600	E787160VGS562MQ35C	1.000 × 1.375	Q35	22.9	23.7	10.3
	8,200	E787160VGS822MQ41C	1.000 × 1.625	Q41	15.8	16.5	12.3
	12,000	E787160VGS123MQ54C	1.000 × 2.125	Q54	11.3	12.1	15.3
	18,000	E787160VGS183MQ67C	1.000 × 2.625	Q67	9.2	9.9	17.8
	22,000	E787160VGS223MQ79C	1.000 × 3.125	Q79	7.8	8.8	19.1
	27,000	E787160VGS273MQ92C	1.000 × 3.625	Q92	7.0	7.7	22.0

† For terminal and construction options, refer to the part numbering system for descriptions and codes.

* Refer to diagram of dimensions for detailed case size specifications.

Standard Voltage Ratings - Large Tubulars

Rated Voltage (WVDC)	Capacitance (μF)	Global Part Number†	Nominal Case Size* D × L (inches)	Case Size Code	Maximum ESR (mΩ) at +25°C 20k-100kHz	Maximum Impedance (mΩ) at +25°C, 100kHz	Rated Ripple Current (A rms) at +125°C, 20kHz
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25 Volts 32 Volts Surge	1,200	E787250VGS122MT29C	0.750 × 1.125	T29	58.1	63.8	5.3
	1,800	E787250VGS182MT35C	0.750 × 1.375	T35	45.5	49.0	6.5
	2,200	E787250VGS222MT41C	0.750 × 1.625	T41	32.9	34.1	7.6
	3,900	E787250VGS392MT54C	0.750 × 2.125	T54	23.5	24.2	9.5
	4,700	E787250VGS472MT67C	0.750 × 2.625	T67	18.9	19.8	11.3
	5,600	E787250VGS562MT79C	0.750 × 3.125	T79	16.1	16.5	13.5
	1,800	E787250VGS182MP29C	0.875 × 1.125	P29	38.9	39.6	7.0
	2,700	E787250VGS272MP35C	0.875 × 1.375	P35	29.6	30.3	8.7
	3,300	E787250VGS332MP41C	0.875 × 1.625	P41	20.3	20.9	10.3
	5,600	E787250VGS562MP54C	0.875 × 2.125	P54	14.3	14.3	13.3
	6,800	E787250VGS682MP67C	0.875 × 2.625	P67	11.3	12.1	15.4
	10,000	E787250VGS103MP79C	0.875 × 3.125	P79	9.7	9.9	18.5
	2,200	E787250VGS222MQ29C	1.000 × 1.125	Q29	30.0	30.8	8.3
	3,900	E787250VGS392MQ35C	1.000 × 1.375	Q35	22.9	23.7	10.3
	5,600	E787250VGS562MQ41C	1.000 × 1.625	Q41	15.8	16.5	12.3
	8,200	E787250VGS822MQ54C	1.000 × 2.125	Q54	11.3	12.1	15.3
	10,000	E787250VGS103MQ67C	1.000 × 2.625	Q67	9.2	9.9	17.8
	12,000	E787250VGS123MQ79C	1.000 × 3.125	Q79	7.8	8.8	19.1
	15,000	E787250VGS153MQ92C	1.000 × 3.625	Q92	7.0	7.7	22.0

35 Volts 44 Volts Surge	680	E787350VGS681MT29C	0.750 × 1.125	T29	58.1	63.8	5.3
	1,200	E787350VGS122MT35C	0.750 × 1.375	T35	45.5	49.0	6.5
	1,500	E787350VGS152MT41C	0.750 × 1.625	T41	32.9	34.1	7.6
	2,200	E787350VGS222MT54C	0.750 × 2.125	T54	23.5	24.2	9.5
	3,300	E787350VGS332MT67C	0.750 × 2.625	T67	18.9	19.8	11.3
	3,900	E787350VGS392MT79C	0.750 × 3.125	T79	16.1	16.5	13.5
	1,200	E787350VGS122MP29C	0.875 × 1.125	P29	38.9	39.6	7.0
	1,800	E787350VGS182MP35C	0.875 × 1.375	P35	29.6	30.3	8.7
	2,200	E787350VGS222MP41C	0.875 × 1.625	P41	20.3	20.9	10.3
	3,900	E787350VGS392MP54C	0.875 × 2.125	P54	14.3	14.3	13.3
	4,700	E787350VGS472MP67C	0.875 × 2.625	P67	11.3	12.1	15.4
	5,600	E787350VGS562MP79C	0.875 × 3.125	P79	9.7	9.9	18.5
	1,500	E787350VGS152MQ29C	1.000 × 1.125	Q29	30.0	30.8	8.3
	2,700	E787350VGS272MQ35C	1.000 × 1.375	Q35	22.9	23.7	10.3
	3,300	E787350VGS332MQ41C	1.000 × 1.625	Q41	15.8	16.5	12.3
	5,600	E787350VGS562MQ54C	1.000 × 2.125	Q54	11.3	12.1	15.3
	6,800	E787350VGS682MQ67C	1.000 × 2.625	Q67	9.2	9.9	17.8
	8,200	E787350VGS822MQ79C	1.000 × 3.125	Q79	7.8	8.8	19.1
	10,000	E787350VGS103MQ92C	1.000 × 3.625	Q92	7.0	7.7	22.0

50 Volts 63 Volts Surge	390	E787500VGS391MT29C	0.750 × 1.125	T29	105.0	147.0	4.2
	680	E787500VGS681MT35C	0.750 × 1.375	T35	88.0	123.0	5.1
	820	E787500VGS821MT41C	0.750 × 1.625	T41	70.0	98.0	6.0
	1,200	E787500VGS122MT54C	0.750 × 2.125	T54	51.8	72.8	7.8
	1,800	E787500VGS182MT67C	0.750 × 2.625	T67	32.2	45.2	9.0
	2,200	E787500VGS222MT79C	0.750 × 3.125	T79	24.9	35.0	9.6
	680	E787500VGS681MP29C	0.875 × 1.125	P29	69.0	96.6	5.8
	1,000	E787500VGS102MP35C	0.875 × 1.375	P35	52.7	73.8	7.1
	1,200	E787500VGS122MP41C	0.875 × 1.625	P41	36.4	51.0	8.4
	2,200	E787500VGS222MP54C	0.875 × 2.125	P54	28.0	39.2	10.8
	2,700	E787500VGS272MP67C	0.875 × 2.625	P67	20.3	28.4	12.4
	3,300	E787500VGS332MP79C	0.875 × 3.125	P79	15.8	22.1	13.2
	820	E787500VGS821MQ29C	1.000 × 1.125	Q29	53.1	74.2	6.6
	1,500	E787500VGS152MQ35C	1.000 × 1.375	Q35	41.0	57.4	8.2
	1,800	E787500VGS182MQ41C	1.000 × 1.625	Q41	28.8	40.6	9.8
	2,700	E787500VGS272MQ54C	1.000 × 2.125	Q54	22.4	31.4	12.6
	3,900	E787500VGS392MQ67C	1.000 × 2.625	Q67	17.9	25.1	14.4
	4,700	E787500VGS472MQ79C	1.000 × 3.125	Q79	14.0	19.6	15.4
	5,600	E787500VGS562MQ92C	1.000 × 3.625	Q92	11.8	16.8	18.0

†For terminal and construction options, refer to the part numbering system for descriptions and codes.

*Refer to diagram of dimensions for detailed case size specifications.

Standard Voltage Ratings - Large Tubulars

Rated Voltage (WVDC)	Capacitance (μF)	Global Part Number†	Nominal Case Size* D × L (inches)	Case Size Code	Maximum ESR (mΩ) at +25°C 20k-100kHz	Maximum Impedance (mΩ) at +25°C, 100kHz	Rated Ripple Current (A rms) at +125°C, 20kHz
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63 Volts 79 Volts Surge	270	E787630VGS271MT29C	0.750 × 1.125	T29	105.0	147.0	4.2
	470	E787630VGS471MT35C	0.750 × 1.375	T35	88.0	123.0	5.1
	560	E787630VGS561MT41C	0.750 × 1.625	T41	70.0	98.0	6.0
	820	E787630VGS821MT54C	0.750 × 2.125	T54	51.8	72.8	7.8
	1,200	E787630VGS122MT67C	0.750 × 2.625	T67	32.2	45.2	9.0
	1,500	E787630VGS152MT79C	0.750 × 3.125	T79	24.9	35.0	9.6
	390	E787630VGS391MP29C	0.875 × 1.125	P29	69.0	96.6	5.8
	680	E787630VGS681MP35C	0.875 × 1.375	P35	52.7	73.8	7.1
	820	E787630VGS821MP41C	0.875 × 1.625	P41	36.4	51.0	8.4
	1,200	E787630VGS122MP54C	0.875 × 2.125	P54	28.0	39.2	10.8
	1,800	E787630VGS182MP67C	0.875 × 2.625	P67	20.3	28.4	12.4
	2,200	E787630VGS222MP79C	0.875 × 3.125	P79	15.8	22.1	13.2
	560	E787630VGS561MQ29C	1.000 × 1.125	Q29	53.1	74.2	6.6
	1,000	E787630VGS102MQ35C	1.000 × 1.375	Q35	41.0	57.4	8.2
	1,200	E787630VGS122MQ41C	1.000 × 1.625	Q41	28.8	40.6	9.8
	1,800	E787630VGS182MQ54C	1.000 × 2.125	Q54	22.4	31.4	12.6
	2,700	E787630VGS272MQ67C	1.000 × 2.625	Q67	17.9	25.1	14.4
	3,300	E787630VGS332MQ79C	1.000 × 3.125	Q79	14.0	19.6	15.4
	3,900	E787630VGS392MQ92C	1.000 × 3.625	Q92	11.8	16.8	18.0

80 Volts 100 Volts Surge	180	E787800VGS181MT29C	0.750 × 1.125	T29	117.0	161.7	4.0
	270	E787800VGS271MT35C	0.750 × 1.375	T35	98.2	135.3	4.8
	390	E787800VGS391MT41C	0.750 × 1.625	T41	78.0	107.8	5.7
	560	E787800VGS561MT54C	0.750 × 2.125	T54	57.8	80.1	7.4
	820	E787800VGS821MT67C	0.750 × 2.625	T67	35.9	49.7	8.5
	1,000	E787800VGS102MT79C	0.750 × 3.125	T79	27.8	38.5	9.1
	270	E787800VGS271MP29C	0.875 × 1.125	P29	77.0	106.3	5.5
	470	E787800VGS471MP35C	0.875 × 1.375	P35	59.0	81.2	6.7
	560	E787800VGS561MP41C	0.875 × 1.625	P41	40.6	56.1	8.0
	820	E787800VGS821MP54C	0.875 × 2.125	P54	31.0	43.1	10.2
	1,200	E787800VGS122MP67C	0.875 × 2.625	P67	22.5	31.2	11.7
	1,500	E787800VGS152MP79C	0.875 × 3.125	P79	17.4	24.3	12.5
	390	E787800VGS391MQ29C	1.000 × 1.125	Q29	59.3	81.6	6.2
	680	E787800VGS681MQ35C	1.000 × 1.375	Q35	45.6	63.1	7.7
	820	E787800VGS821MQ41C	1.000 × 1.625	Q41	32.1	44.7	9.3
	1,200	E787800VGS122MQ54C	1.000 × 2.125	Q54	25.0	34.5	11.9
	1,800	E787800VGS182MQ67C	1.000 × 2.625	Q67	20.0	27.6	13.6
	2,200	E787800VGS222MQ79C	1.000 × 3.125	Q79	15.6	21.6	14.6
	2,700	E787800VGS272MQ92C	1.000 × 3.625	Q92	13.2	18.5	17.0

†For terminal and construction options, refer to the part numbering system for descriptions and codes.

* Refer to diagram of dimensions for detailed case size specifications.