UPGRADE
Engineering Bulletin Jul 03

U767D Series

UNITED CHEMI-CON

- Large Tubulars
- Very High Temperature Up to +125°C
- New Higher Ripple Currents
- New Higher CV Per Case Size
- Vibration Resistant
- New Optional Low Profile Mounting
- New Reduced Cost

The U767D series, the industry's standard 125°C aluminum electrolytic, now offers extended voltage ratings and longer life in addition to the higher capacitance and ripple current per case size. These improved U767D series capacitors allow the designer to reduce the size, weight and cost of high performance automotive 36V and 42V systems. New ratings offer all these attributes while maintaining a continuous 3,000 hour-125°C load life (12,000 hours at 105°C with the 125°C rated ripple current applied) and the same high vibration construction. New U767D ratings are available in either the standard three lead (keyed polarity) radial VG-LL mounting or the new low profile horizontal mounting VT-FX style. Custom designs are available upon request.

The U767D capacitors are non-solvent proof. Refer to the Mini-Glossary for cleaning guidelines and recommended cleaning agents that are compatible with United Chemi-Con products.

Summary of Specifications

- **3-lead radial for vertical mount; optional formed leads for horizontal mount.**
- **Capacitance range: 47 to 56,000µF.**
- **Voltage range: 6.3 to 250VDC.**
- **Operating temperature range: −55°C to +125°C.**
- **Leakage current in µA: $I = K\sqrt{CV}$: K = 0.5 at +25°C, 4.0 at +125°C after 5 minutes.**
- **Standard capacitance tolerance: ±20%**
- **Nominal case size (D×L): 19×29mm to 25×92mm.**
- **Rated lifetime: 3,000 hours at +125°C with rated ripple current applied and 12,000 hours at +105°C with +125°C rated ripple current applied.**

U767D Specifications

Item	Characteristics
Operating Temperature Range	−55 to +125°C
Rated Voltage Range	6.3 to 250VDC
Capacitance Range	47 to 56,000µF 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, 4.0 at +125°C after 5 minutes. Where I = Max. leakage current (µA), C = Nominal capacitance (µF) and V = Rated voltage (V)
Rated Ripple Current Multipliers *Refer to Section 4 of the Mini-Glossary for explanation of Rated Ripple Current Multipliers.*	Ambient Temperature (°C) +85°C: 1.00 | +105°C: 0.80 | +125°C: 0.40 Frequency (Hz) 300Hz: 0.75 | 1kHz: 0.82 | 20k-100kHz: 1.00
Life Validation Test	The following specifications shall be satisfied when the capacitors are restored to +25°C after subjecting them to the DC rated voltage for 3,000 hours at +125°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 Test	The following specifications shall be satisfied when the capacitors are restored to +25°C after exposing them for 1,000 hours at +125°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

Part Numbering System for U767D Series

When ordering, always specify complete catalog number for U767D Series.

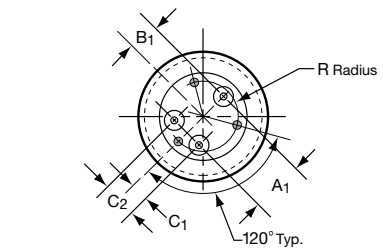
U767D 35 VG 332 M 22X41 LL

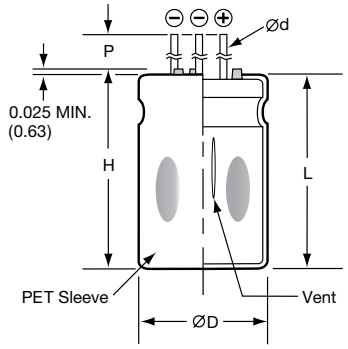
- **LL** — Lead Length: LL = Standard. FX = Formed Lead (VT style only).
- **22X41** — Case Code: See Case Sizes in Tables.
- **M** — Capacitance Tolerance: M = ±20%
- **332** — Capacitance Value: Expressed in Microfarads. The first two digits are significant figures, and the third digit indicates the number of zeros for capacitance of 100µF or more. R indicates the decimal point for capacitance less than 100µF (e.g. R33 = .33µF; 3R3 = 3.3µF; 33R = 33µF; 331 = 330µF; 332 = 3,300µF; 333 = 33,000µF).
- **VG** — Lead Configuration: VG = 3 Lead Radial Vertical Mount. VT = 3 Formed Lead Horizontal Mount.
- **35** — DC Rated Voltage: Expressed in Volts (e.g. 35 = 35WVDC).
- **U767D** — Series Name: Indicates Basic Capacitor Design.

Diagram of Dimensions

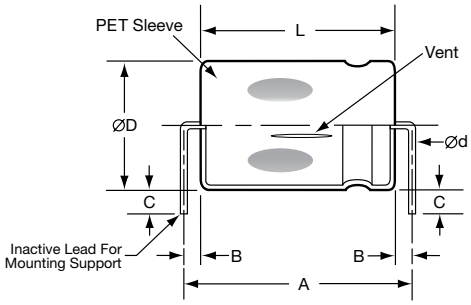
Unit: inches (mm)

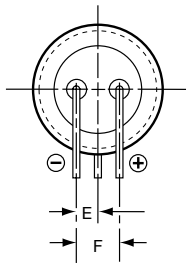
VG-LL Vertical Mount for 3 Lead Keyed Polarity Radial (Standard)



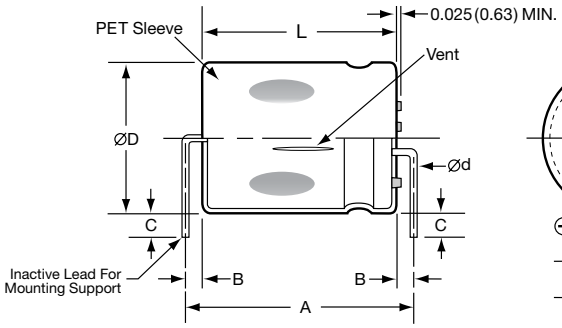


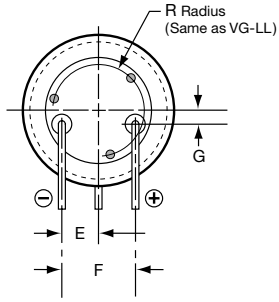
VT-FX Horizontal Mount for Ø0.750 (Ø19.0)





VT-FX Horizontal Mount for Ø0.875 and Ø1.000 (Ø22.2 and Ø25.4)





VG-LL 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

VG-LL 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

VT-FX 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

VT-FX 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

VG-LL and VT-FX Dimensions in Inches

Case Code	ØD ±0.040 With Sleeve	L +0.080 With Sleeve	H +0.080 With Standoffs	Ød ±0.004 Terminal Diameter	Typical Weight (ounces)
19X29	0.750	1.125	1.165	0.040	0.458
19X35		1.375	1.415		0.635
19X41		1.625	1.665		0.811
19X54		2.125	2.165		0.988
19X67		2.625	2.665		1.164
19X79		3.125	3.165		1.340
22X29	0.875	1.125	1.165	0.040	0.635
22X35		1.375	1.415		0.881
22X41		1.625	1.665		1.093
22X54		2.125	2.165		1.340
22X67		2.625	2.665		1.587
22X79		3.125	3.165		1.834
25X29	1.000	1.125	1.165	0.040	0.811
25X35		1.375	1.415		0.988
25X41		1.625	1.665		1.129
25X54		2.125	2.165		1.446
25X67		2.625	2.665		1.764
25X79		3.125	3.165		2.081
25X92		3.625	3.665		2.399

VG-LL and VT-FX Dimensions in Millimeters

Case Code	ØD ±1.00 With Sleeve	L +2.00 With Sleeve	H +2.00 With Standoffs	Ød ±0.10 Terminal Diameter	Typical Weight (grams)
19X29	19.0	29.0	30.0	1.00	13
19X35		35.0	36.0		18
19X41		41.0	42.0		23
19X54		54.0	55.0		28
19X67		67.0	68.0		33
19X79		79.0	80.0		38
22X29	22.2	29.0	30.0	1.00	18
22X35		35.0	36.0		25
22X41		41.0	42.0		31
22X54		54.0	55.0		38
22X67		67.0	68.0		45
22X79		79.0	80.0		52
25X29	25.4	29.0	30.0	1.00	23
25X35		35.0	36.0		28
25X41		41.0	42.0		32
25X54		54.0	55.0		41
25X67		67.0	68.0		50
25X79		79.0	80.0		59
25X92		92.0	93.0		68

U767D Series

Standard Voltage Ratings - VG/Radial Lead

Rated Voltage (WVDC)	Capacitance (µF)	Catalog Part Number	Nominal Case Size* D×L (inches)	Maximum ESR (mΩ) at +25°C, 20k-100kHz	Maximum Impedance (mΩ) at +25°C, 100kHz	Rated Ripple Current (A rms) at +85°C, 20kHz
6.3 Volts 8 Volts Surge	3,900	U767D6.3VG392M19X29LL	0.750 × 1.125	32.0	39.0	7.0
	6,800	U767D6.3VG682M19X35LL	0.750 × 1.375	27.5	32.5	8.5
	10,000	U767D6.3VG103M19X41LL	0.750 × 1.625	23.0	26.0	10.0
	15,000	U767D6.3VG153M19X54LL	0.750 × 2.125	16.0	19.0	12.0
	18,000	U767D6.3VG183M19X67LL	0.750 × 2.625	13.0	16.0	15.0
	22,000	U767D6.3VG223M19X79LL	0.750 × 3.125	10.0	13.0	18.0
	5,600	U767D6.3VG562M22X29LL	0.875 × 1.125	25.0	27.0	10.5
	10,000	U767D6.3VG103M22X35LL	0.875 × 1.375	20.0	22.0	12.0
	12,000	U767D6.3VG123M22X41LL	0.875 × 1.625	15.0	17.0	13.5
	18,000	U767D6.3VG183M22X54LL	0.875 × 2.125	11.0	12.0	16.5
	27,000	U767D6.3VG273M22X67LL	0.875 × 2.625	8.5	10.0	20.0
	33,000	U767D6.3VG333M22X79LL	0.875 × 3.125	7.5	9.0	23.0
	8,200	U767D6.3VG822M25X29LL	1.000 × 1.125	17.0	21.0	13.5
	15,000	U767D6.3VG153M25X35LL	1.000 × 1.375	14.0	17.5	15.0
	18,000	U767D6.3VG183M25X41LL	1.000 × 1.625	11.0	14.0	16.5
	27,000	U767D6.3VG273M25X54LL	1.000 × 2.125	8.5	11.0	20.0
	39,000	U767D6.3VG393M25X67LL	1.000 × 2.625	7.0	9.0	23.0
	47,000	U767D6.3VG473M25X79LL	1.000 × 3.125	6.0	8.0	27.0
	56,000	U767D6.3VG563M25X92LL	1.000 × 3.625	5.0	8.0	32.0
10 Volts 13 Volts Surge	3,300	U767D10VG332M19X29LL	0.750 × 1.125	32.0	39.0	7.0
	5,600	U767D10VG562M19X35LL	0.750 × 1.375	27.5	32.5	8.5
	6,800	U767D10VG682M19X41LL	0.750 × 1.625	23.0	26.0	10.0
	10,000	U767D10VG103M19X54LL	0.750 × 2.125	16.0	19.0	12.0
	15,000	U767D10VG153M19X67LL	0.750 × 2.625	13.0	16.0	15.0
	18,000	U767D10VG183M19X79LL	0.750 × 3.125	10.0	13.0	18.0
	4,700	U767D10VG472M22X29LL	0.875 × 1.125	25.0	27.0	10.5
	6,800	U767D10VG682M22X35LL	0.875 × 1.375	20.0	22.0	12.0
	10,000	U767D10VG103M22X41LL	0.875 × 1.625	15.0	17.0	13.5
	15,000	U767D10VG153M22X54LL	0.875 × 2.125	11.0	12.0	16.5
	18,000	U767D10VG183M22X67LL	0.875 × 2.625	8.5	10.0	20.0
	27,000	U767D10VG273M22X79LL	0.875 × 3.125	7.5	9.0	23.0
	6,800	U767D10VG682M25X29LL	1.000 × 1.125	17.0	21.0	13.5
	10,000	U767D10VG103M25X35LL	1.000 × 1.375	14.0	17.5	15.0
	15,000	U767D10VG153M25X41LL	1.000 × 1.625	11.0	14.0	16.5
	22,000	U767D10VG223M25X54LL	1.000 × 2.125	8.5	11.0	20.0
	27,000	U767D10VG273M25X67LL	1.000 × 2.625	7.0	9.0	23.0
	39,000	U767D10VG393M25X79LL	1.000 × 3.125	6.0	8.0	27.0
	47,000	U767D10VG473M25X92LL	1.000 × 3.625	5.0	8.0	32.0
16 Volts 20 Volts Surge	2,200	U767D16VG222M19X29LL	0.750 × 1.125	32.0	39.0	7.0
	3,900	U767D16VG392M19X35LL	0.750 × 1.375	27.5	32.5	8.5
	5,600	U767D16VG562M19X41LL	0.750 × 1.625	23.0	26.0	10.0
	8,200	U767D16VG822M19X54LL	0.750 × 2.125	16.0	19.0	12.0
	10,000	U767D16VG103M19X67LL	0.750 × 2.625	13.0	16.0	15.0
	15,000	U767D16VG153M19X79LL	0.750 × 3.125	10.0	13.0	18.0
	3,300	U767D16VG332M22X29LL	0.875 × 1.125	25.0	27.0	10.5
	5,600	U767D16VG562M22X35LL	0.875 × 1.375	20.0	22.0	12.0
	8,200	U767D16VG822M22X41LL	0.875 × 1.625	15.0	17.0	13.5
	12,000	U767D16VG123M22X54LL	0.875 × 2.125	11.0	12.0	16.5
	15,000	U767D16VG153M22X67LL	0.875 × 2.625	8.5	10.0	20.0
	18,000	U767D16VG183M22X79LL	0.875 × 3.125	7.5	9.0	23.0
	5,600	U767D16VG562M25X29LL	1.000 × 1.125	17.0	21.0	13.5
	8,200	U767D16VG822M25X35LL	1.000 × 1.375	14.0	17.5	15.0
	12,000	U767D16VG123M25X41LL	1.000 × 1.625	11.0	14.0	16.5
	18,000	U767D16VG183M25X54LL	1.000 × 2.125	8.5	11.0	20.0
	22,000	U767D16VG223M25X67LL	1.000 × 2.625	7.0	9.0	23.0
	27,000	U767D16VG273M25X79LL	1.000 × 3.125	6.0	8.0	27.0
	33,000	U767D16VG333M25X92LL	1.000 × 3.625	5.0	8.0	32.0

***The case sizes in table are with no sleeve, refer to diagrams for case sizes with sleeve.**

U767D Series

Standard Voltage Ratings - VG/Radial Lead

Rated Voltage (WVDC)	Capacitance (µF)	Catalog Part Number	Nominal Case Size* D × L (inches)	Maximum ESR (mΩ) at +25°C, 20k-100kHz	Maximum Impedance (mΩ) at +25°C, 100kHz	Rated Ripple Current (A rms) at +85°C, 20kHz
25 Volts **32 Volts Surge**	1,500	U767D25VG152M19X29LL	0.750 × 1.125	32.0	39.0	7.0
	2,700	U767D25VG272M19X35LL	0.750 × 1.375	27.5	32.5	8.5
	3,300	U767D25VG332M19X41LL	0.750 × 1.625	23.0	26.0	10.0
	4,700	U767D25VG472M19X54LL	0.750 × 2.125	16.0	19.0	12.0
	6,800	U767D25VG682M19X67LL	0.750 × 2.625	13.0	16.0	15.0
	8,200	U767D25VG822M19X79LL	0.750 × 3.125	10.0	13.0	18.0
	2,200	U767D25VG222M22X29LL	0.875 × 1.125	25.0	27.0	10.5
	3,300	U767D25VG332M22X35LL	0.875 × 1.375	20.0	22.0	12.0
	4,700	U767D25VG472M22X41LL	0.875 × 1.625	15.0	17.0	13.5
	6,800	U767D25VG682M22X54LL	0.875 × 2.125	11.0	12.0	16.5
	10,000	U767D25VG103M22X67LL	0.875 × 2.625	8.5	10.0	20.0
	12,000	U767D25VG123M22X79LL	0.875 × 3.125	7.5	9.0	23.0
	3,300	U767D25VG332M25X29LL	1.000 × 1.125	17.0	21.0	13.5
	5,600	U767D25VG562M25X35LL	1.000 × 1.375	14.0	17.5	15.0
	6,800	U767D25VG682M25X41LL	1.000 × 1.625	11.0	14.0	16.5
	10,000	U767D25VG103M25X54LL	1.000 × 2.125	8.5	11.0	20.0
	15,000	U767D25VG153M25X67LL	1.000 × 2.625	7.0	9.0	23.0
	18,000	U767D25VG183M25X79LL	1.000 × 3.125	6.0	8.0	27.0
	22,000	U767D25VG223M25X92LL	1.000 × 3.625	5.0	8.0	32.0
35 Volts **44 Volts Surge**	1,000	U767D35VG102M19X29LL	0.750 × 1.125	32.0	39.0	7.0
	1,800	U767D35VG182M19X35LL	0.750 × 1.375	27.5	32.5	8.5
	2,200	U767D35VG222M19X41LL	0.750 × 1.625	23.0	26.0	10.0
	3,300	U767D35VG332M19X54LL	0.750 × 2.125	16.0	19.0	12.0
	4,700	U767D35VG472M19X67LL	0.750 × 2.625	13.0	16.0	15.0
	5,600	U767D35VG562M19X79LL	0.750 × 3.125	10.0	13.0	18.0
	1,500	U767D35VG152M22X29LL	0.875 × 1.125	25.0	27.0	10.5
	2,200	U767D35VG222M22X35LL	0.875 × 1.375	20.0	22.0	12.0
	3,300	U767D35VG332M22X41LL	0.875 × 1.625	15.0	17.0	13.5
	4,700	U767D35VG472M22X54LL	0.875 × 2.125	11.0	12.0	16.5
	6,800	U767D35VG682M22X67LL	0.875 × 2.625	8.5	10.0	20.0
	8,200	U767D35VG822M22X79LL	0.875 × 3.125	7.5	9.0	23.0
	2,200	U767D35VG222M25X29LL	1.000 × 1.125	17.0	21.0	13.5
	3,300	U767D35VG332M25X35LL	1.000 × 1.375	14.0	17.5	15.0
	4,700	U767D35VG472M25X41LL	1.000 × 1.625	11.0	14.0	16.5
	6,800	U767D35VG682M25X54LL	1.000 × 2.125	8.5	11.0	20.0
	10,000	U767D35VG103M25X67LL	1.000 × 2.625	7.0	9.0	23.0
	12,000	U767D35VG123M25X79LL	1.000 × 3.125	6.0	8.0	27.0
	15,000	U767D35VG153M25X92LL	1.000 × 3.625	5.0	8.0	32.0
50 Volts **63 Volts Surge**	680	U767D50VG681M19X29LL	0.750 × 1.125	94.5	118.1	5.6
	1,200	U767D50VG122M19X35LL	0.750 × 1.375	78.8	98.5	6.4
	1,500	U767D50VG152M19X41LL	0.750 × 1.625	63.1	78.9	7.4
	2,200	U767D50VG222M19X54LL	0.750 × 2.125	46.7	58.4	9.7
	2,700	U767D50VG272M19X67LL	0.750 × 2.625	29.0	36.3	12.5
	3,900	U767D50VG392M19X79LL	0.750 × 3.125	22.4	28.0	14.5
	1,000	U767D50VG102M22X29LL	0.875 × 1.125	62.1	77.6	7.2
	1,500	U767D50VG152M22X35LL	0.875 × 1.375	47.5	59.4	8.7
	2,200	U767D50VG222M22X41LL	0.875 × 1.625	32.8	41.0	10.7
	3,900	U767D50VG392M22X54LL	0.875 × 2.125	25.2	31.5	13.2
	4,700	U767D50VG472M22X67LL	0.875 × 2.625	18.3	22.9	16.3
	5,600	U767D50VG562M22X79LL	0.875 × 3.125	14.1	17.6	19.6
	1,500	U767D50VG152M25X29LL	1.000 × 1.125	47.8	59.8	8.5
	2,200	U767D50VG222M25X35LL	1.000 × 1.375	37.0	46.3	10.2
	3,300	U767D50VG332M25X41LL	1.000 × 1.625	26.0	32.5	12.6
	4,700	U767D50VG472M25X54LL	1.000 × 2.125	20.2	25.3	15.4
	6,800	U767D50VG682M25X67LL	1.000 × 2.625	16.1	20.1	18.2
	8,200	U767D50VG822M25X79LL	1.000 × 3.125	12.6	15.8	21.0
	10,000	U767D50VG103M25X92LL	1.000 × 3.625	10.6	13.3	24.6

***The case sizes in table are with no sleeve, refer to diagrams for case sizes with sleeve.**

U767D Series

Standard Voltage Ratings - VG/Radial Lead

Rated Voltage (WVDC)	Capacitance (µF)	Catalog Part Number	Nominal Case Size* D×L (inches)	Maximum ESR (mΩ) at +25°C, 20k-100kHz	Maximum Impedance (mΩ) at +25°C, 100kHz	Rated Ripple Current (A rms) at +85°C, 20kHz
63 Volts 79 Volts Surge	470	U767D63VG471M19X29LL	0.750 × 1.125	94.5	118.1	5.6
	820	U767D63VG821M19X35LL	0.750 × 1.375	78.8	98.5	6.4
	1,000	U767D63VG102M19X41LL	0.750 × 1.625	63.1	78.9	7.4
	1,500	U767D63VG152M19X54LL	0.750 × 2.125	46.7	58.4	9.7
	2,200	U767D63VG222M19X67LL	0.750 × 2.625	29.0	36.3	12.5
	2,700	U767D63VG272M19X79LL	0.750 × 3.125	22.4	28.0	14.5
	680	U767D63VG681M22X29LL	0.875 × 1.125	62.1	77.6	7.2
	1,000	U767D63VG102M22X35LL	0.875 × 1.375	47.5	59.4	8.7
	1,500	U767D63VG152M22X41LL	0.875 × 1.625	32.8	41.0	10.7
	2,200	U767D63VG222M22X54LL	0.875 × 2.125	25.2	31.5	13.2
	2,700	U767D63VG272M22X67LL	0.875 × 2.625	18.3	22.9	16.3
	3,900	U767D63VG392M22X79LL	0.875 × 3.125	14.1	17.6	19.6
	1,000	U767D63VG102M25X29LL	1.000 × 1.125	47.8	59.8	8.5
	1,500	U767D63VG152M25X35LL	1.000 × 1.375	37.0	46.3	10.2
	2,200	U767D63VG222M25X41LL	1.000 × 1.625	26.0	32.5	12.6
	3,300	U767D63VG332M25X54LL	1.000 × 2.125	20.2	25.3	15.4
	4,700	U767D63VG472M25X67LL	1.000 × 2.625	16.1	20.1	18.2
	5,600	U767D63VG562M25X79LL	1.000 × 3.125	12.6	15.8	21.0
	6,800	U767D63VG682M25X92LL	1.000 × 3.625	10.6	13.3	24.6
80 Volts 100 Volts Surge	330	U787D80VG331M19X29LL	0.750 × 1.125	94.5	118.1	5.6
	560	U787D80VG561M19X35LL	0.750 × 1.375	78.8	98.5	6.4
	680	U787D80VG681M19X41LL	0.750 × 1.625	63.1	78.9	7.4
	1,000	U787D80VG102M19X54LL	0.750 × 2.125	46.7	58.4	9.7
	1,500	U787D80VG152M19X67LL	0.750 × 2.625	29.0	36.3	12.5
	1,800	U787D80VG182M19X79LL	0.750 × 3.125	22.4	28.0	14.5
	560	U787D80VG561M22X29LL	0.875 × 1.125	62.1	77.6	7.2
	680	U787D80VG681M22X35LL	0.875 × 1.375	47.5	59.4	8.7
	1,000	U787D80VG102M22X41LL	0.875 × 1.625	32.8	41.0	10.7
	1,500	U787D80VG152M22X54LL	0.875 × 2.125	25.2	31.5	13.2
	2,200	U787D80VG222M22X67LL	0.875 × 2.625	18.3	22.9	16.3
	2,700	U787D80VG272M22X79LL	0.875 × 3.125	14.1	17.6	19.6
	820	U787D80VG821M25X29LL	1.000 × 1.125	47.8	59.8	8.5
	1,000	U787D80VG102M25X35LL	1.000 × 1.375	37.0	46.3	10.2
	1,500	U787D80VG152M25X41LL	1.000 × 1.625	26.0	32.5	12.6
	2,200	U787D80VG222M25X54LL	1.000 × 2.125	20.2	25.3	15.4
	3,300	U787D80VG332M25X67LL	1.000 × 2.625	16.1	20.1	18.2
	3,900	U787D80VG392M25X79LL	1.000 × 3.125	12.6	15.8	21.0
	4,700	U787D80VG472M25X92LL	1.000 × 3.625	10.6	13.3	24.6
100 Volts 125 Volts Surge	220	U767D100VG221M19X29LL	0.750 × 1.125	283.9	327.4	4.4
	330	U767D100VG331M19X35LL	0.750 × 1.375	236.8	273.0	5.1
	470	U767D100VG471M19X41LL	0.750 × 1.625	189.6	218.6	5.9
	680	U767D100VG681M19X54LL	0.750 × 2.125	140.3	161.8	7.7
	1,000	U767D100VG102M19X67LL	0.750 × 2.625	87.1	100.5	9.9
	1,200	U767D100VG122M19X79LL	0.750 × 3.125	67.3	77.6	11.5
	330	U767D100VG331M22X29LL	0.875 × 1.125	186.6	215.2	5.7
	470	U767D100VG471M22X35LL	0.875 × 1.375	142.7	164.6	6.9
	680	U767D100VG681M22X41LL	0.875 × 1.625	98.6	113.7	8.5
	1,000	U767D100VG102M22X54LL	0.875 × 2.125	75.7	87.3	10.5
	1,200	U767D100VG122M22X67LL	0.875 × 2.625	55.0	63.4	13.0
	1,800	U767D100VG182M22X79LL	0.875 × 3.125	42.4	48.9	15.6
	470	U767D100VG471M25X29LL	1.000 × 1.125	143.6	165.6	6.8
	680	U767D100VG681M25X35LL	1.000 × 1.375	110.9	127.9	8.1
	1,000	U767D100VG102M25X41LL	1.000 × 1.625	78.1	90.1	10.0
	1,500	U767D100VG152M25X54LL	1.000 × 2.125	60.7	70.0	12.3
	1,800	U767D100VG182M25X67LL	1.000 × 2.625	48.4	55.8	14.5
	2,200	U767D100VG222M25X79LL	1.000 × 3.125	37.9	43.7	16.8
	2,700	U767D100VG272M25X92LL	1.000 × 3.625	31.9	36.7	19.6

***The case sizes in table are with no sleeve, refer to diagrams for case sizes with sleeve.**

U767D Series

Standard Voltage Ratings - VG/Radial Lead

Rated Voltage (WVDC)	Capacitance (µF)	Catalog Part Number	Nominal Case Size* D × L (inches)	Maximum ESR (mΩ) at +25°C, 20k-100kHz	Maximum Impedance (mΩ) at +25°C, 100kHz	Rated Ripple Current (A rms) at +85°C, 20kHz
160 Volts **200 Volts Surge**	120	U767D160VG121M19X29LL	0.750 × 1.125	283.9	327.4	4.4
	180	U767D160VG181M19X35LL	0.750 × 1.375	236.8	273.0	5.1
	220	U767D160VG221M19X41LL	0.750 × 1.625	189.6	218.6	5.9
	390	U767D160VG391M19X54LL	0.750 × 2.125	140.3	161.8	7.7
	470	U767D160VG471M19X67LL	0.750 × 2.625	87.1	100.5	9.9
	680	U767D160VG681M19X79LL	0.750 × 3.125	67.3	77.6	11.5
	150	U767D160VG151M22X29LL	0.875 × 1.125	186.6	215.2	5.7
	270	U767D160VG271M22X35LL	0.875 × 1.375	142.7	164.6	6.9
	330	U767D160VG331M22X41LL	0.875 × 1.625	98.6	113.7	8.5
	560	U767D160VG561M22X54LL	0.875 × 2.125	75.7	87.3	10.5
	680	U767D160VG681M22X67LL	0.875 × 2.625	55.0	63.4	13.0
	820	U767D160VG821M22X79LL	0.875 × 3.125	42.4	48.9	15.6
	220	U767D160VG221M25X29LL	1.000 × 1.125	143.6	165.6	6.8
	391	U767D160VG391M25X35LL	1.000 × 1.375	110.9	127.9	8.1
	560	U767D160VG561M25X41LL	1.000 × 1.625	78.1	90.1	10.0
	820	U767D160VG821M25X54LL	1.000 × 2.125	60.7	70.0	12.3
	1,000	U767D160VG102M25X67LL	1.000 × 2.625	48.4	55.8	14.5
	1,200	U767D160VG122M25X79LL	1.000 × 3.125	37.9	43.7	16.8
	1,500	U767D160VG152M25X92LL	1.000 × 3.625	31.9	36.7	19.6
200 Volts **250 Volts Surge**	68	U767D200VG68RM19X29LL	0.750 × 1.125	792.4	871.6	2.7
	120	U767D200VG121M19X35LL	0.750 × 1.375	660.7	726.8	3.1
	150	U767D200VG151M19X41LL	0.750 × 1.625	529.1	582.0	3.6
	220	U767D200VG221M19X54LL	0.750 × 2.125	391.6	430.7	4.7
	330	U767D200VG331M19X67LL	0.750 × 2.625	243.2	267.5	6.1
	390	U767D200VG391M19X79LL	0.750 × 3.125	187.8	206.6	7.1
	100	U767D200VG101M22X29LL	0.875 × 1.125	520.7	572.8	3.5
	180	U767D200VG181M22X35LL	0.875 × 1.375	398.3	438.1	4.2
	220	U767D200VG221M22X41LL	0.875 × 1.625	275.0	302.5	5.2
	330	U767D200VG331M22X54LL	0.875 × 2.125	211.3	232.4	6.4
	470	U767D200VG471M22X67LL	0.875 × 2.625	153.4	168.8	8.0
	560	U767D200VG561M22X79LL	0.875 × 3.125	118.2	130.0	9.6
	150	U767D200VG151M25X29LL	1.000 × 1.125	400.8	440.9	4.2
	270	U767D200VG271M25X35LL	1.000 × 1.375	309.4	340.3	5.0
	330	U767D200VG331M25X41LL	1.000 × 1.625	218.0	239.8	6.1
	470	U767D200VG471M25X54LL	1.000 × 2.125	169.4	186.3	7.5
	680	U767D200VG681M25X67LL	1.000 × 2.625	135.0	148.5	8.9
	820	U767D200VG821M25X79LL	1.000 × 3.125	105.6	116.2	10.3
	1,000	U767D200VG102M25X92LL	1.000 × 3.625	88.9	97.8	12.0
250 Volts **300 Volts Surge**	47	U767D250VG47RM19X29LL	0.750 × 1.125	792.4	871.6	2.7
	68	U767D250VG68RM19X35LL	0.750 × 1.375	660.7	726.8	3.1
	100	U767D250VG101M19X41LL	0.750 × 1.625	529.1	582.0	3.6
	150	U767D250VG151M19X54LL	0.750 × 2.125	391.6	430.7	4.7
	180	U767D250VG181M19X67LL	0.750 × 2.625	243.2	267.5	6.1
	270	U767D250VG271M19X79LL	0.750 × 3.125	187.8	206.6	7.1
	68	U767D250VG68RM22X29LL	0.875 × 1.125	520.7	572.8	3.5
	120	U767D250VG121M22X35LL	0.875 × 1.375	398.3	438.1	4.2
	150	U767D250VG151M22X41LL	0.875 × 1.625	275.0	302.5	5.2
	220	U767D250VG221M22X54LL	0.875 × 2.125	211.3	232.4	6.4
	330	U767D250VG331M22X67LL	0.875 × 2.625	153.4	168.8	8.0
	390	U767D250VG391M22X79LL	0.875 × 3.125	118.2	130.0	9.6
	100	U767D250VG101M25X29LL	1.000 × 1.125	400.8	440.9	4.2
	150	U767D250VG151M25X35LL	1.000 × 1.375	309.4	340.3	5.0
	220	U767D250VG221M25X41LL	1.000 × 1.625	218.0	239.8	6.1
	330	U767D250VG331M25X54LL	1.000 × 2.125	169.4	186.3	7.5
	390	U767D250VG391M25X67LL	1.000 × 2.625	135.0	148.5	8.9
	560	U767D250VG561M25X79LL	1.000 × 3.125	105.6	116.2	10.3
	680	U767D250VG681M25X92LL	1.000 × 3.625	88.9	97.8	12.0

***The case sizes in table are with no sleeve, refer to diagrams for case sizes with sleeve.**