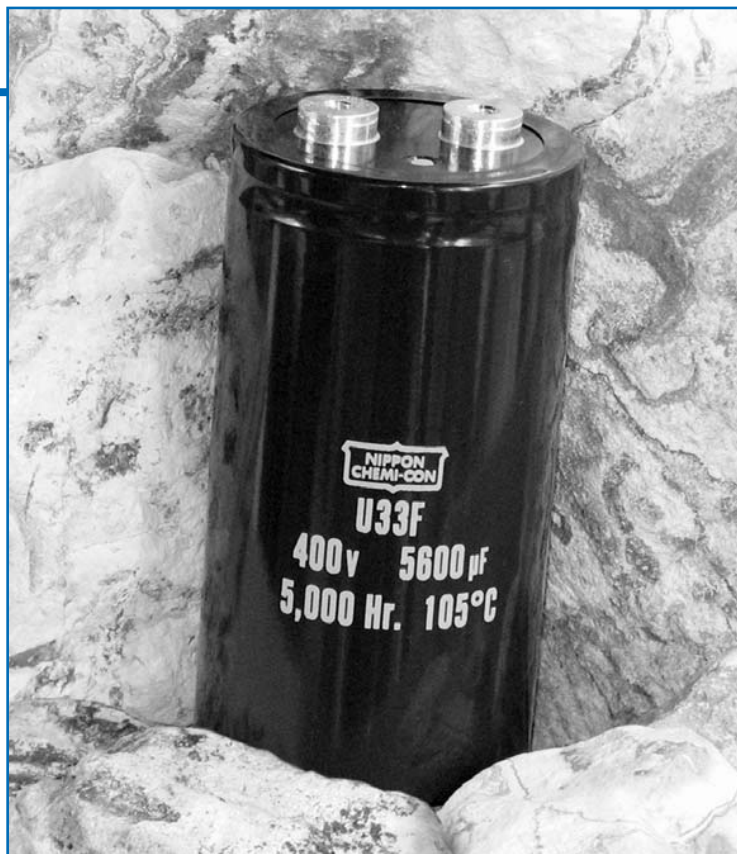


U33F Series



- Large Can
- Screw Terminals
- High Ripple
- 350 to 500VDC Ratings
- RoHS Compliant
- +105°C Maximum Temperature
- 5,000 Hours Lifetime at +105°C
- Up to 175,000 Hours Useful Life



The U33F series is a high temperature screw mount series specifically designed to provide the ripple current capability and long life required for high reliability inverter applications. The U33F has an endurance rating of 5,000 hours at +105°C with the rated ripple current applied. The useful life can exceed 175,000 hours at +40°C and 1.5x the ripple current. These capacitors are available in a variety of high current English or Metric thread terminals. Mounting options include a three-footed clamp or bottom threaded stud. Custom designs are also available.

Summary of Specifications

- Screw terminals: high and low post, English and Metric thread.
- Capacitance range: 1,200 to 15,000µF.
- Voltage range: 350 to 500VDC.
- Category temperature range: -40°C to +105°C.
- Leakage current: 0.02CV(µA) or 5mA, whichever is smaller, after 5 minutes at +25°C.
- Standard capacitance tolerance: ±20%
- Nominal case size (D × L): D = 50.8mm (2.000") to 89mm (3.500"); L = 92mm (3.625") to 219mm (8.625").
- Rated lifetime: 5,000 hours at +105°C with rated ripple current applied.

U33F Series

U33F Specifications - Screw Terminals

Item	Characteristics																																															
Category Temperature Range	- 40 to +105°C																																															
Rated Voltage Range	350 to 500VDC																																															
Capacitance Range	1,200 to 15,000µF at +25°C, 120Hz																																															
Capacitance Tolerance	± 20% (M) at +25°C, 120Hz																																															
Leakage Current	I = 0.02CV (µA) or 5mA, whichever is smaller, after 5 minutes at +25°C. Where I = Max. leakage current (µA), C = Nominal capacitance (µF) and V = Rated voltage (V)																																															
Rated Ripple Current Multipliers	<p>Ambient Temperature (°C)</p> <table border="1"> <tr> <td>+65°C</td> <td>+85°C</td> <td>+105°C</td> </tr> <tr> <td>2.20</td> <td>1.73</td> <td>1.00</td> </tr> </table> <p>Frequency (Hz)</p> <table border="1"> <tr> <td>DC Rated Voltage</td> <td>50Hz</td> <td>120Hz</td> <td>300Hz</td> <td>1kHz</td> <td>10kHz</td> <td>100kHz</td> </tr> <tr> <td>350 - 450V</td> <td>0.77</td> <td>1.00</td> <td>1.16</td> <td>1.30</td> <td>1.41</td> <td>1.43</td> </tr> <tr> <td>500V</td> <td>0.70</td> <td>1.00</td> <td>1.16</td> <td>1.30</td> <td>1.41</td> <td>1.43</td> </tr> </table> <p>To determine maximum ripple current at a specified temperature and frequency, use the appropriate multiplier shown.</p>	+65°C	+85°C	+105°C	2.20	1.73	1.00	DC Rated Voltage	50Hz	120Hz	300Hz	1kHz	10kHz	100kHz	350 - 450V	0.77	1.00	1.16	1.30	1.41	1.43	500V	0.70	1.00	1.16	1.30	1.41	1.43																				
+65°C	+85°C	+105°C																																														
2.20	1.73	1.00																																														
DC Rated Voltage	50Hz	120Hz	300Hz	1kHz	10kHz	100kHz																																										
350 - 450V	0.77	1.00	1.16	1.30	1.41	1.43																																										
500V	0.70	1.00	1.16	1.30	1.41	1.43																																										
Endurance (Load Life)	<p>The following specifications shall be satisfied when the capacitors are restored to +25°C after subjecting them to DC voltage for 5,000 hours at +105°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.</p> <p>Capacitance change: ≤ 20% from initial measurement ESR change : ≤ 200% of initial specified limit Leakage current : ≤ initial specified limit</p>																																															
Useful Life	<p>With specified standard voltage and ripple current applied, typical life as function of ambient temperature is listed below.</p> <table border="1"> <tr> <td>+105°C</td> <td>6,500 hours max.</td> <td rowspan="3"> Capacitance change: ≤ 30% from initial measurement ESR change : ≤ 300% of initial specified limit Leakage current : ≤ initial specified limit </td> </tr> <tr> <td>+85°C</td> <td>24,000 hours max.</td> </tr> <tr> <td>+65°C</td> <td>122,000 hours max.</td> </tr> </table>	+105°C	6,500 hours max.	Capacitance change: ≤ 30% from initial measurement ESR change : ≤ 300% of initial specified limit Leakage current : ≤ initial specified limit	+85°C	24,000 hours max.	+65°C	122,000 hours max.																																								
+105°C	6,500 hours max.	Capacitance change: ≤ 30% from initial measurement ESR change : ≤ 300% of initial specified limit Leakage current : ≤ initial specified limit																																														
+85°C	24,000 hours max.																																															
+65°C	122,000 hours max.																																															
Shelf Life	<p>The following specifications shall be satisfied when the capacitors are restored to +25°C after exposing them for 500 hours at +105°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.</p> <p>Capacitance change: ≤ 20% from initial measurement ESR change : ≤ 200% of initial specified limit Leakage current : ≤ initial specified limit</p>																																															
Vibration Rating	10-55Hz, 10g sinusoidal in three axes, 2 hours per axis.																																															
Maximum Tightening Torque	<table border="1"> <tr> <td>Terminal Code</td> <td>HP</td> <td>HL</td> <td>CD</td> <td>CP</td> <td>CH</td> <td>CA</td> <td>CS</td> </tr> <tr> <td>Thread Size</td> <td>10-32 NF-2B</td> <td>M5x0.8-6H</td> <td></td> <td>1/4-28 NF-2B</td> <td></td> <td>M6x1-6H</td> <td></td> </tr> <tr> <td>3 Threads Engaged</td> <td colspan="3">2.0 N·m (18.0 in·lb)</td> <td colspan="4">4.0 N·m (35.0 in·lb)</td> </tr> <tr> <td>6 Threads Engaged</td> <td colspan="3">2.8 N·m (25.0 in·lb)</td> <td colspan="4">6.2 N·m (55.0 in·lb)</td> </tr> </table>	Terminal Code	HP	HL	CD	CP	CH	CA	CS	Thread Size	10-32 NF-2B	M5x0.8-6H		1/4-28 NF-2B		M6x1-6H		3 Threads Engaged	2.0 N·m (18.0 in·lb)			4.0 N·m (35.0 in·lb)				6 Threads Engaged	2.8 N·m (25.0 in·lb)			6.2 N·m (55.0 in·lb)																		
Terminal Code	HP	HL	CD	CP	CH	CA	CS																																									
Thread Size	10-32 NF-2B	M5x0.8-6H		1/4-28 NF-2B		M6x1-6H																																										
3 Threads Engaged	2.0 N·m (18.0 in·lb)			4.0 N·m (35.0 in·lb)																																												
6 Threads Engaged	2.8 N·m (25.0 in·lb)			6.2 N·m (55.0 in·lb)																																												
Typical Inductance (nH) at 1MHz	<table border="1"> <tr> <td rowspan="2">Case Diameter (mm)</td> <td colspan="7">Terminal Code</td> </tr> <tr> <td>HP</td> <td>HL</td> <td>CD</td> <td>CP</td> <td>CH</td> <td>CA</td> <td>CS</td> </tr> <tr> <td>ø50.8</td> <td>—</td> <td>—</td> <td>NA</td> <td>NA</td> <td>NA</td> <td>NA</td> <td>NA</td> </tr> <tr> <td>ø63.5</td> <td>—</td> <td>—</td> <td>—</td> <td>—</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>ø76.2</td> <td>30</td> <td>30</td> <td>25</td> <td>20</td> <td>25</td> <td>20</td> <td>25</td> </tr> <tr> <td>ø89.0</td> <td>30</td> <td>30</td> <td>25</td> <td>20</td> <td>25</td> <td>20</td> <td>25</td> </tr> </table>	Case Diameter (mm)	Terminal Code							HP	HL	CD	CP	CH	CA	CS	ø50.8	—	—	NA	NA	NA	NA	NA	ø63.5	—	—	—	—	—	—	—	ø76.2	30	30	25	20	25	20	25	ø89.0	30	30	25	20	25	20	25
Case Diameter (mm)	Terminal Code																																															
	HP	HL	CD	CP	CH	CA	CS																																									
ø50.8	—	—	NA	NA	NA	NA	NA																																									
ø63.5	—	—	—	—	—	—	—																																									
ø76.2	30	30	25	20	25	20	25																																									
ø89.0	30	30	25	20	25	20	25																																									
Custom Designs	Custom CV values per case size and termination type may be available upon request. Contact appropriate representative with specific requirements.																																															

U33F
SCREW MOUNT 105°C

U33F Series

U33F Useful Life

Useful Life: 6,500 Hours at +105°C

The life expectancy of a capacitor is shown as a function of ambient temperature and ripple current load.

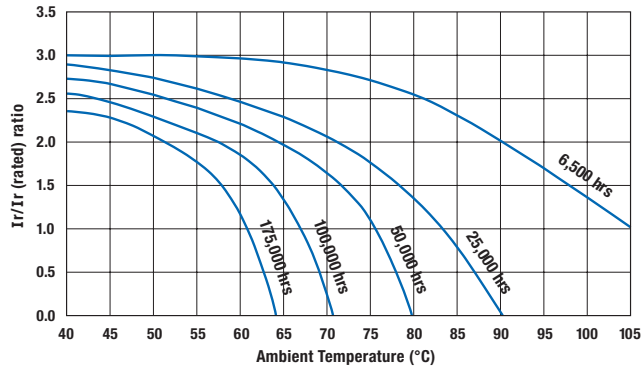
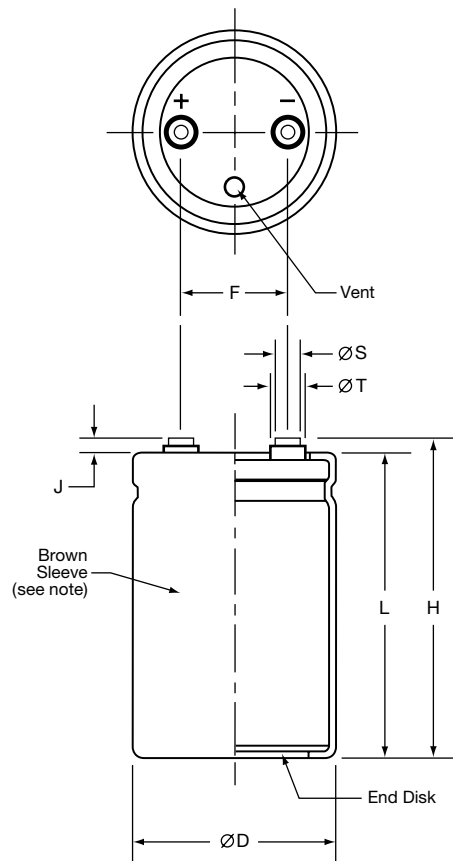


Diagram of Dimensions - Screw Terminals

Large Can/Screw Terminals

Unit: mm (inches)



Case Dimensions and Standard Box Quantities

Case Size Code	ØD +2.0 (0.080)	L ±1.0 (0.040)	F ±0.25 (0.010)	Standard Box Quantity
CB7 CD0	50.8 (2.000)	117 (4.625) 130 (5.125)	22.2 (0.875)	49
D92 DA5 DB7 DD0 DE3	63.5 (2.500)	92 (3.625) 105 (4.125) 117 (4.625) 130 (5.125) 143 (5.625)	28.6 (1.125)	20
E92 EA5 EB7 EE3 EJ1 EM9	76.2 (3.000)	92 (3.625) 105 (4.125) 117 (4.625) 143 (5.625) 181 (7.125) 219 (8.625)	31.8 (1.250)	16 9
F92 FA5 FB7 FE3 FF5 FK0 FM9	89.0 (3.500)	92 (3.625) 105 (4.125) 117 (4.625) 143 (5.625) 155 (6.125) 190 (7.500) 219 (8.625)	31.8 (1.250)	5

Note:
In some cases, the color of the sleeve may change slightly due to the operating conditions, however, the discoloration will not impair capacitor function.

Terminal Specifications

Terminal Code	Available Case Diameter		Thread Size	Minimum Thread Depth	J ±0.5 (0.020)	H ±2.0 (0.080)	ØS ±0.25 (0.010)	ØT ±0.25 (0.010)
	ØD Code	ØD mm (inches)						
HP	C	50.8 (2.000)	10-32 NF-2B	9.5 (0.375)	6.4 (0.250)	L+J	8.0 (0.313)	11.1 (0.438)
HL	C	50.8 (2.000)	M5x0.8-6H	9.5 (0.375)	6.4 (0.250)	L+J	8.0 (0.313)	11.1 (0.438)
CD	D-E	63.5 - 76.2 (2.500 - 3.000)	M5x0.8-6H	8.5 (0.335)	5.0 (0.200)	L+J	13.0 (0.512)	18.8 (0.740)
CP	D-F	63.5 - 89.0 (2.500 - 3.500)	1/4-28 NF-2B	8.7 (0.344)	2.4 (0.093)	L+J	17.5 (0.689)	—
CH	D-F	63.5 - 89.0 (2.500 - 3.500)	1/4-28 NF-2B	11.9 (0.468)	6.4 (0.250)	L+J	17.5 (0.689)	—
CA	D-F	63.5 - 89.0 (2.500 - 3.500)	M6x1-6H	8.7 (0.344)	2.4 (0.093)	L+J	17.5 (0.689)	—
CS	D-F	63.5 - 89.0 (2.500 - 3.500)	M6x1-6H	11.9 (0.468)	6.4 (0.250)	L+J	17.5 (0.689)	—

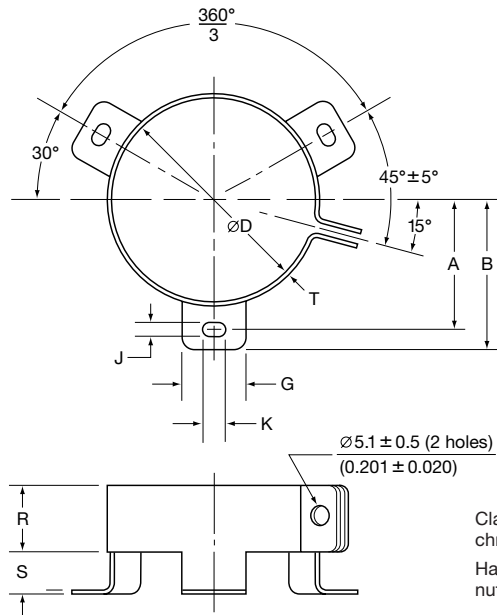
Mounting Hardware is optional. Refer to hardware specifications on the following page.

U33F Series

Mounting Hardware - Screw Terminals

Type C: Three-Footed Clamp

Unit: mm (inches)



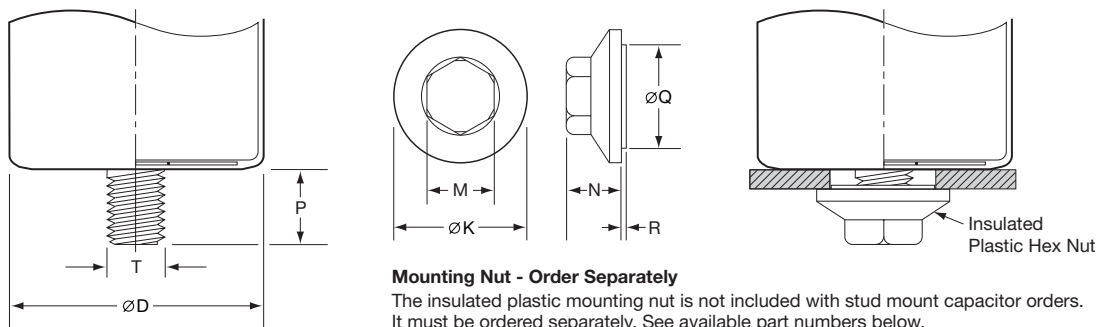
Clamp: Zinc with silver trivalent chromate post treatment.

Hardware: Screw, washer and hexagon nut included with each clamp.

Type C: Clamp Dimensions

Mounting Code	Case ØD	A ±1.0 (0.040)	B ±1.0 (0.040)	G ±1.0 (0.040)	J ±0.5 (0.020)	K ±0.5 (0.020)	R ±1.0 (0.040)	S ±1.0 (0.040)	T ±0.5 (0.020)
C	50.8 (2.000)	31.8 (1.250)	36.5 (1.437)	13.3 (0.524)	4.5 (0.177)	7.1 (0.280)	19.1 (0.751)	9.5 (0.374)	0.8 (0.032)
C	63.5 (2.500)	38.1 (1.500)	42.9 (1.689)	13.3 (0.524)	4.5 (0.177)	7.1 (0.280)	19.1 (0.751)	9.5 (0.374)	0.8 (0.032)
C	76.2 (3.000)	44.5 (1.750)	49.2 (1.937)	13.3 (0.524)	4.5 (0.177)	7.1 (0.280)	19.1 (0.751)	9.5 (0.374)	1.0 (0.040)
C	89.0 (3.500)	50.8 (2.000)	56.5 (2.224)	16.0 (0.630)	4.5 (0.177)	8.0 (0.313)	21.0 (0.827)	9.0 (0.354)	1.0 (0.040)

Type S: Stud Mounting



Mounting Nut - Order Separately

The insulated plastic mounting nut is not included with stud mount capacitor orders. It must be ordered separately. See available part numbers below.

Type S: Stud Dimensions

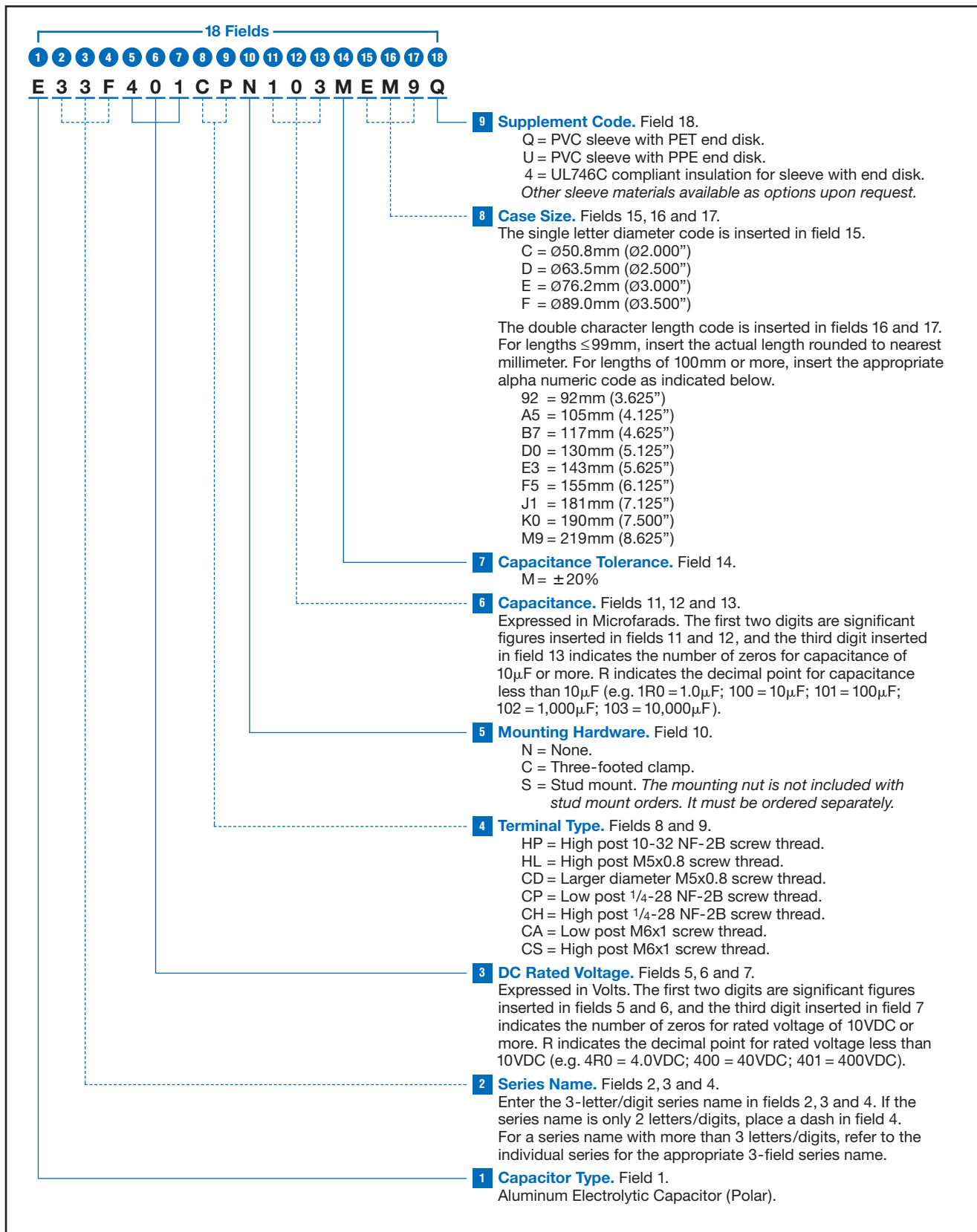
Mounting Code	P ±1.0 (0.040)	T Thread Size
S	16.0 (0.630)	M12

Mounting Nut Dimensions

Part Number	ØK ±2.0 (0.080)	M ±1.0 (0.040)	N ±1.0 (0.040)	ØQ ±1.0 (0.040)	R ±1.0 (0.040)
50-8D	30.0 (1.181)	19.0 (0.748)	18.0 (0.709)	22.0 (0.866)	1.40 (0.055)
50-8E	38.0 (1.496)	19.0 (0.748)	18.0 (0.709)	30.0 (1.181)	1.40 (0.055)

U33F Series

Part Numbering System for U33F Series When ordering, always specify complete 18-field global part number.



U33F Series

Standard Voltage Ratings - Screw Terminals

Rated Voltage (WVDC)	Capacitance (µF)	Global Part Number†	Nominal Case Size* D × L (mm)	Case Size Code	Maximum ESR (mΩ) at +25°C, 120Hz	Rated Ripple Current (A rms) at +105°C		
						120Hz	300Hz	>3kHz
350 Volts 400 Volts Surge	1,800	E33F351HPN182MCB7Q	50.8 × 117	CB7	58	7.5	9.0	10.5
	2,200	E33F351HPN222MCD0Q	50.8 × 130	CD0	51	8.3	9.9	11.6
	2,200	E33F351CPN222MD92Q	63.5 × 92	D92	48	8.5	10.2	11.9
	2,700	E33F351CPN272MDA5Q	63.5 × 105	DA5	40	9.7	11.7	13.6
	3,300	E33F351CPN332MDB7Q	63.5 × 117	DB7	34	10.9	13.1	15.3
	3,900	E33F351CPN392MDD0Q	63.5 × 130	DD0	30	12.1	14.6	17.0
	3,900	E33F351CPN392MDE3Q	63.5 × 143	DE3	29	12.8	15.4	17.9
	3,300	E33F351CPN332ME92Q	76.2 × 92	E92	34	11.2	13.4	15.6
	3,900	E33F351CPN392MEA5Q	76.2 × 105	EA5	28	12.8	15.3	17.9
	5,600	E33F351CPN562MEB7Q	76.2 × 117	EB7	21	15.3	18.4	21.4
	6,800	E33F351CPN682MEE3Q	76.2 × 143	EE3	19	17.4	20.9	24.4
	8,200	E33F351CPN822MEJ1Q	76.2 × 181	EJ1	14	22.0	26.4	30.8
	10,000	E33F351CPN103MEM9Q	76.2 × 219	EM9	11	26.5	31.8	37.1
	4,700	E33F351CPN472MF92Q	89 × 92	F92	25	14.3	17.1	20.0
	5,600	E33F351CPN562MFA5Q	89 × 105	FA5	21	16.3	19.5	22.8
	6,800	E33F351CPN682MFB7Q	89 × 117	FB7	18	18.3	21.9	25.6
	8,200	E33F351CPN822MFE3Q	89 × 143	FE3	14	22.2	26.6	31.0
	10,000	E33F351CPN103MFF5Q	89 × 155	FF5	13	24.1	28.9	33.7
12,000	E33F351CPN123MFK0Q	89 × 190	FK0	10	29.3	35.2	41.1	
15,000	E33F351CPN153MFM9Q	89 × 219	FM9	8	33.6	40.4	47.1	
400 Volts 450 Volts Surge	1,800	E33F401HPN182MCB7Q	50.8 × 117	CB7	58	7.5	9.0	10.5
	2,200	E33F401HPN222MCD0Q	50.8 × 130	CD0	50	8.3	10.0	11.6
	2,200	E33F401CPN222MD92Q	63.5 × 92	D92	47	8.5	10.2	12.0
	2,700	E33F401CPN272MDA5Q	63.5 × 105	DA5	40	9.8	11.7	13.7
	3,300	E33F401CPN332MDB7Q	63.5 × 117	DB7	34	11.0	13.2	15.4
	3,900	E33F401CPN392MDD0Q	63.5 × 130	DD0	30	12.2	14.6	17.0
	3,900	E33F401CPN392MDE3Q	63.5 × 143	DE3	26	13.4	16.0	18.7
	3,300	E33F401CPN332ME92Q	76.2 × 92	E92	34	11.2	13.4	15.7
	3,900	E33F401CPN392MEA5Q	76.2 × 105	EA5	28	12.8	15.4	17.9
	4,700	E33F401CPN472MEB7Q	76.2 × 117	EB7	24	14.4	17.3	20.1
	5,600	E33F401CPN562MEE3Q	76.2 × 143	EE3	19	17.5	21.0	24.5
	8,200	E33F401CPN822MEJ1Q	76.2 × 181	EJ1	14	22.1	26.5	30.9
	10,000	E33F401CPN103MEM9Q	76.2 × 219	EM9	11	26.6	31.9	37.2
	4,700	E33F401CPN472MF92Q	89 × 92	F92	25	14.3	17.2	20.0
	5,600	E33F401CPN562MFA5Q	89 × 105	FA5	21	16.3	19.6	22.9
	6,800	E33F401CPN682MFB7Q	89 × 117	FB7	18	18.3	22.0	25.6
	8,200	E33F401CPN822MFE3Q	89 × 143	FE3	14	22.2	26.7	31.1
	10,000	E33F401CPN103MFF5Q	89 × 155	FF5	12	24.1	29.0	33.8
12,000	E33F401CPN123MFK0Q	89 × 190	FK0	10	29.4	35.3	41.2	
15,000	E33F401CPN153MFM9Q	89 × 219	FM9	8	33.7	40.5	47.2	
420 Volts 470 Volts Surge	1,500	E33F421HPN152MCB7Q	50.8 × 117	CB7	69	6.9	8.2	9.6
	1,800	E33F421HPN182MCD0Q	50.8 × 130	CD0	60	7.6	9.1	10.7
	1,800	E33F421CPN182MD92Q	63.5 × 92	D92	57	7.8	9.4	10.9
	2,200	E33F421CPN222MDA5Q	63.5 × 105	DA5	47	8.9	10.7	12.5
	2,700	E33F421CPN272MDB7Q	63.5 × 117	DB7	40	10.1	12.1	14.1
	3,300	E33F421CPN332MDD0Q	63.5 × 130	DD0	35	11.1	13.4	15.6
	3,300	E33F421CPN332MDE3Q	63.5 × 143	DE3	34	11.8	14.1	16.5
	2,700	E33F421CPN272ME92Q	76.2 × 92	E92	40	10.3	12.3	14.4
	3,300	E33F421CPN332MEA5Q	76.2 × 105	EA5	34	11.7	14.1	16.4
	3,900	E33F421CPN392MEB7Q	76.2 × 117	EB7	29	13.2	15.8	18.4
	5,600	E33F421CPN562MEE3Q	76.2 × 143	EE3	22	16.0	19.2	22.4
	6,800	E33F421CPN682MEJ1Q	76.2 × 181	EJ1	17	19.8	23.8	27.8
	8,200	E33F421CPN822MEM9Q	76.2 × 219	EM9	14	23.9	28.7	33.5
	3,900	E33F421CPN392MF92Q	89 × 92	F92	30	13.1	15.7	18.3
	4,700	E33F421CPN472MFA5Q	89 × 105	FA5	25	15.0	17.9	20.9

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

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

U33F Series

Standard Voltage Ratings - Screw Terminals

Rated Voltage (WVDC)	Capacitance (µF)	Global Part Number†	Nominal Case Size* D×L (mm)	Case Size Code	Maximum ESR (mΩ) at +25°C, 120Hz	Rated Ripple Current (A rms) at +105°C		
						120Hz	300Hz	>3kHz
420 Volts 470 Volts Surge	5,600	E33F421CPN562MFB7Q	89 × 117	FB7	21	16.8	20.1	23.5
	8,200	E33F421CPN822MFE3Q	89 × 143	FE3	17	20.4	24.4	28.5
	8,200	E33F421CPN822MFF5Q	89 × 155	FF5	15	22.1	26.5	31.0
	10,000	E33F421CPN103MFK0Q	89 × 190	FK0	12	26.9	32.3	37.7
	12,000	E33F421CPN123MFM9Q	89 × 219	FM9	10	30.9	37.1	43.3
450 Volts 500 Volts Surge	1,500	E33F451HPN152MCB7Q	50.8 × 117	CB7	69	6.9	8.2	9.6
	1,800	E33F451HPN182MCD0Q	50.8 × 130	CD0	60	7.6	9.1	10.6
	1,800	E33F451CPN182MD92Q	63.5 × 92	D92	57	7.8	9.4	10.9
	2,200	E33F451CPN222MDA5Q	63.5 × 105	DA5	47	8.9	10.7	12.5
	2,700	E33F451CPN272MDB7Q	63.5 × 117	DB7	40	10.0	12.0	14.1
	3,300	E33F451CPN332MDD0Q	63.5 × 130	DD0	35	11.1	13.4	15.6
	3,300	E33F451CPN332MDE3Q	63.5 × 143	DE3	34	11.8	14.1	16.5
	2,700	E33F451CPN272ME92Q	76.2 × 92	E92	40	10.3	12.3	14.4
	3,300	E33F451CPN332MEA5Q	76.2 × 105	EA5	34	11.7	14.1	16.4
	3,900	E33F451CPN392MEB7Q	76.2 × 117	EB7	29	13.2	15.8	18.4
	4,700	E33F451CPN472MEE3Q	76.2 × 143	EE3	22	16.0	19.2	22.4
	6,800	E33F451CPN682MEJ1Q	76.2 × 181	EJ1	17	20.2	24.2	28.3
	8,200	E33F451CPN822MEM9Q	76.2 × 219	EM9	13	24.3	29.2	34.1
	3,900	E33F451CPN392MF92Q	89 × 92	F92	30	13.1	15.7	18.3
	4,700	E33F451CPN472MFA5Q	89 × 105	FA5	25	14.9	17.9	20.9
	5,600	E33F451CPN562MFB7Q	89 × 117	FB7	21	16.8	20.1	23.5
	6,800	E33F451CPN682MFE3Q	89 × 143	FE3	17	20.3	24.4	28.5
8,200	E33F451CPN822MFF5Q	89 × 155	FF5	15	22.1	26.5	30.9	
10,000	E33F451CPN103MFK0Q	89 × 190	FK0	12	26.9	32.3	37.7	
12,000	E33F451CPN123MFM9Q	89 × 219	FM9	10	30.9	37.0	43.2	
500 Volts 550 Volts Surge	1,200	E33F501HPN122MCB7Q	50.8 × 117	CB7	82	6.3	7.5	8.8
	1,500	E33F501HPN152MCD0Q	50.8 × 130	CD0	72	6.9	8.3	9.7
	1,500	E33F501CPN152MD92Q	63.5 × 92	D92	71	7.0	8.4	9.8
	1,800	E33F501CPN182MDA5Q	63.5 × 105	DA5	59	8.0	9.6	11.2
	2,200	E33F501CPN222MDB7Q	63.5 × 117	DB7	51	9.0	10.8	12.6
	2,200	E33F501CPN222MDD0Q	63.5 × 130	DD0	44	10.0	12.0	13.9
	2,700	E33F501CPN272MDE3Q	63.5 × 143	DE3	39	10.9	13.1	15.3
	2,200	E33F501CPN222ME92Q	76.2 × 92	E92	51	9.2	11.0	12.8
	2,700	E33F501CPN272MEA5Q	76.2 × 105	EA5	42	10.5	12.6	14.7
	3,300	E33F501CPN332MEB7Q	76.2 × 117	EB7	36	11.8	14.1	16.5
	3,900	E33F501CPN392MEE3Q	76.2 × 143	EE3	28	14.3	17.2	20.0
	5,600	E33F501CPN562MEJ1Q	76.2 × 181	EJ1	21	18.1	21.7	25.3
	6,800	E33F501CPN682MEM9Q	76.2 × 219	EM9	17	21.8	26.1	30.5
	3,300	E33F501CPN332MF92Q	89 × 92	F92	37	11.7	14.0	16.4
	3,900	E33F501CPN392MFA5Q	89 × 105	FA5	31	13.4	16.0	18.7
	4,700	E33F501CPN472MFB7Q	89 × 117	FB7	27	15.0	18.0	21.0
	5,600	E33F501CPN562MFE3Q	89 × 143	FE3	21	18.2	21.8	25.5
	6,800	E33F501CPN682MFF5Q	89 × 155	FF5	19	19.8	23.7	27.7
	8,200	E33F501CPN822MFK0Q	89 × 190	FK0	15	24.1	28.9	33.7
	10,000	E33F501CPN103MFM9Q	89 × 219	FM9	12	27.6	33.1	38.7

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

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