Aluminum Capacitors
+ 105 °C, Miniature, Radial Lead

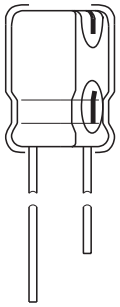


Fig.1 Component outline

FEATURES

- Low impedance
- Low ESR
- High ripple current capability
- High capacitance
- Long life and stability

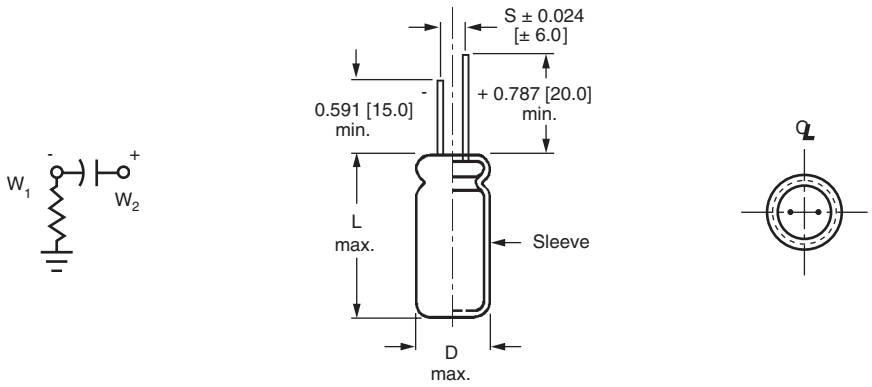
QUICK REFERENCE DATA	
DESCRIPTION	**VALUE**
Nominal case size Ø D x L in mm	0.315" x 0.472" [8.0 x 12.0] to 0.709" x 1.575" [18.0 x 40.0]
Operating temperature	- 55 °C to + 105 °C
Rated capacitance range, C_R	120 µF to 15 000 µF
Tolerance on C_R	± 20 %
Rated voltage range, U_R	6.3 WVDC to 35 WVDC
Termination	2 and 3 radial leads and axial mount
Life validation test at 105 °C	5000 hours: Δ CAP ≤ 20 % from initial measurement. Δ ESR ≤ 1.25 x initial specified limit. Δ DCL ≤ initial specified limit. Δ Z ≤1.75 x initial measurement.
Shelf life at 105 °C	1000 hours: Δ CAP ≤ 15 % from initial measurement. Δ ESR ≤ 1.10 x initial specified limit. Δ DCL ≤ initial specified limit.
DC leakage current at 25 °C	I = 0.01 CV, 2 minutes charge time I in µA, C in µF, V in Volts

RIPPLE CURRENT MULTIPLIERS			
TEMPERATURE			
Ambient temperature	**Multipliers**		
+ 105 °C	1.0		
+ 85 °C	1.73		
+ 65 °C	2.23		
+ 45 °C	2.64		
+ 25 °C	3.0		
FREQUENCY (Hz)			
WVDC	**400**	**1K - 19K**	**20K - 200K**
6.3 - 35	0.75	0.82	1.0

LOW TEMPERATURE PERFORMANCE		
CAPACITANCE RATIO C $^{-55\ °C}/_{C}{}^{+25\ °C}$ MINIMUM AT 120 Hz		
MAXIMUM CAPACITANCE CHANGE		
Voltage	**Multiplier**	
6.3 V - 35 V	0.75	
MAXIMUM IMPEDANCE CHANGE		
Voltage	**120 kHz**	**20 kHz - 100 kHz**
6.3 V - 35 V	4	40

DIMENSIONAL CONFIGURATIONS in inches [millimeters]

Terminal Code D



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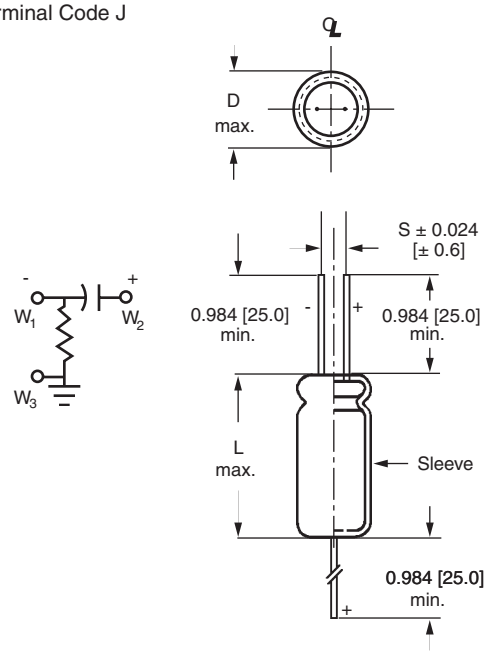
Aluminum Capacitors
+ 105 °C, Miniature, Radial Lead

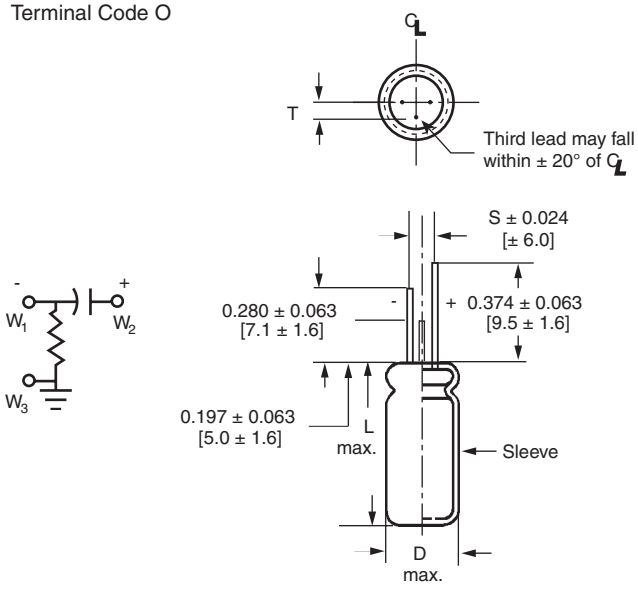
DIMENSIONS in inches [millimeters]

CASE CODE	NOMINAL		STYLE 4		STYLE 3		LEAD SPACING		LEAD DIAMETER		TYPICAL WEIGHT (g)
	D	L	D (max.)	L (max.)	D (max.)	L (max.)	S ± 0.024 [0.60]	T ± 0.020 [0.50]	Nominal	AWG No.	
BB	0.315 [8.0]	0.472 [12.0]	0.335 [8.5]	0.512 [13.0]	0.335 [8.5]	0.551 [14.0]	0.138 [3.5]	N/A	0.025 [0.63]	22	1.0
CC	0.394 [10.0]	0.512 [13.0]	0.413 [10.5]	0.563 [14.3]	0.413 [10.5]	0.630 [16.0]	0.197 [5.0]	N/A	0.025 [0.63]	22	1.7
CD	0.394 [10.0]	0.630 [16.0]	0.413 [10.5]	0.670 [17.0]	0.413 [10.5]	0.740 [18.8]	0.197 [5.0]	N/A	0.025 [0.63]	22	2.0
CG	0.394 [10.0]	0.787 [20.0]	0.413 [10.5]	0.846 [21.5]	0.413 [10.5]	0.906 [23.0]	0.197 [5.0]	N/A	0.025 [0.63]	22	2.5
DG	0.492 [12.5]	0.787 [20.0]	0.512 [13.0]	0.846 [21.5]	0.512 [13.0]	0.906 [23.0]	0.197 [5.0]	0.098 [2.5]	0.032 [0.81]	20	3.8
DK	0.492 [12.5]	0.984 [25.0]	0.512 [13.0]	1.043 [26.5]	0.512 [13.0]	1.142 [29.0]	0.197 [5.0]	0.098 [2.5]	0.032 [0.81]	20	4.5
DT	0.492 [12.5]	1.319 [33.5]	0.512 [13.0]	1.346 [34.2]	0.512 [13.0]	1.417 [36.0]	0.197 [5.0]	0.098 [2.5]	0.032 [0.81]	20	5.8
DS	0.492 [12.5]	1.673 [42.5]	0.512 [13.0]	1.720 [43.7]	0.512 [13.0]	1.791 [45.5]	0.197 [5.0]	0.098 [2.5]	0.032 [0.81]	20	7.3
EK	0.630 [16.0]	0.984 [25.0]	0.650 [16.5]	1.031 [26.2]	0.650 [16.5]	1.098 [27.9]	0.295 [7.5]	0.150 [3.8]	0.032 [0.81]	20	7.2
EN	0.630 [16.0]	1.260 [32.0]	0.650 [16.5]	1.319 [33.5]	0.650 [16.5]	1.417 [36.0]	0.295 [7.5]	0.150 [3.8]	0.032 [0.81]	20	9.4
ER	0.630 [16.0]	1.417 [36.0]	0.650 [16.5]	1.476 [37.5]	0.650 [16.5]	1.575 [40.0]	0.295 [7.5]	0.150 [3.8]	0.032 [0.81]	20	10.6
EU	0.630 [16.0]	1.575 [40.0]	0.650 [16.5]	1.642 [41.7]	0.650 [16.5]	1.669 [42.4]	0.295 [7.5]	0.150 [3.8]	0.032 [0.81]	20	11.8
FR	0.709 [18.0]	1.417 [36.0]	0.728 [18.5]	1.476 [37.5]	0.728 [18.5]	1.575 [40.0]	0.295 [7.5]	0.150 [3.8]	0.032 [0.81]	20	13.4
FV	0.709 [18.0]	1.575 [40.0]	0.728 [18.5]	1.654 [42.0]	0.728 [18.5]	1.693 [43.0]	0.295 [7.5]	0.150 [3.8]	0.032 [0.81]	20	14.9

Terminal Code J

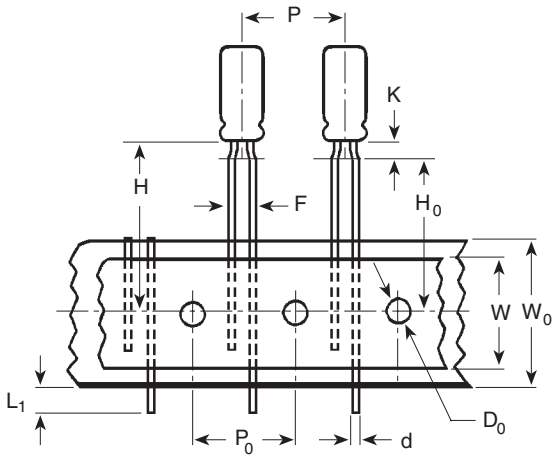


Terminal Code O



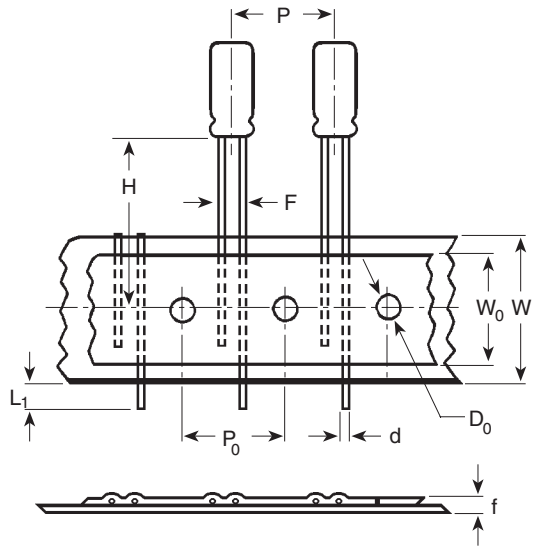
TAPE AND REEL, SPECIFICATIONS TO EIA-468D in inches [millimeters]

Formed Leads



DIMENSIONS in inches [millimeters]		
CASE SIZE	F LEAD SPACING	STD. QTY/REEL
0.236 x 0.453 [6.0 x 11.0]	0.197 [5.0]	800
0.315 x 0.472 [8.0 x 12.0]	0.197 [5.0]	700

Unformed (Straight) Leads



DIMENSIONS in inches [millimeters]		
CASE SIZE	F LEAD SPACING	STD. QTY/REEL
0.236 x 0.453 [6.0 x 11.0]	0.098 (1) [2.5]	800
0.315 x 0.472 [8.0 x 12.0]	0.138 (1) [3.5]	700
0.394 x 0.512 [10.0 x 13.0]	0.197 [5.0]	500
0.394 x 0.630 [10.0 x 16.0]	0.197 [5.0]	500
0.394 x 0.787 [10.0 x 20.0]	0.197 [5.0]	500

Note
(1) Available as special order.

DIMENSIONS in inches [millimeters]					
ITEM	**CASE SIZE (Diameter x Length)**				
	0.236 x 0.433 [6.0 x 11.0]	**0.315 x 0.472 [8.0 x 12.0]**	**0.394 x 0.512 [10.0 x 13.0]**	**0.394 x 0.630 [10.0 x 16.0]**	**0.394 x 0.787 [10.0 x 20.0]**
d - Lead-wire diameter	0.025 [0.63]	0.025 [0.63]	0.025 [0.63]	0.025 [0.63]	0.025 [0.63]
P - Pitch of component	0.500 [12.7]	0.500 [12.7]	0.500 [12.7]	0.500 [12.7]	0.500 [12.7]
P_0 - Feed hole pitch	0.500 [12.7]	0.500 [12.7]	0.500 [12.7]	0.500 [12.7]	0.500 [12.7]
F - Lead-to-lead distance	0.197 [5.0]	0.197 [5.0]	0.197 [5.0]	0.197 [5.0]	0.197 [5.0]
K - Clinch height	0.098 [2.5]	0.157 [4.0]	N/A	N/A	N/A
H - Height of component from tape center	0.728 [18.5]	0.787 [20.0]	0.906 [23.0]	0.906 [23.0]	0.906 [23.0]
H_0 - Lead-wire clinch height	0.630 [16.0]	0.630 [16.0]	N/A	N/A	N/A
W - Tape width	0.709 [18.0]	0.709 [18.0]	0.709 [18.0]	0.709 [18.0]	0.709 [18.0]
W_0 - Hold down tape width	0.591 [15.0]	0.591 [15.0]	0.591 [15.0]	0.591 [15.0]	0.591 [15.0]
D_0 - Feed hole diameter	0.157 [4.0]	0.157 [4.0]	0.157 [4.0]	0.157 [4.0]	0.157 [4.0]
t - Total tape thickness	0.028 [0.7]	0.028 [0.7]	0.028 [0.7]	0.028 [0.7]	0.028 [0.7]
L_1 -Maximumlead protrusion	0.118 [3.0]	0.118 [3.0]	0.118 [3.0]	0.118 [3.0]	0.118 [3.0]

Note
Positive leader is standard. Negative leader is available by special order

ORDERING EXAMPLE

Electrolytic capacitor 757D series: 757D 108 M 010 CG 3 D

DESCRIPTION	
CODE	**EXPLANATION**
757D	product type
108	capacitance value (1000 µF)
M	tolerance (M = ± 20 %)
010	voltage rating at 105 °C (6r3 = 6.3 V)
CG	can size (see dimensions table)
3	sleeve and sealing (3 = p.v.c. sleeve w/epoxy end seal)
D	packaging (D = bulk; straight leads)

STANDARD RATINGS in inches [millimeters]							
CAPACITANCE (µF)	**PART NUMBER**	**NOMINAL CASE SIZE D x L**	**Max. ESR At + 25 °C (mΩ)**		**Max. RIPPLE At + 105 °C(A)**		**Max. Z At + 25 C(mΩ) 100 Hz**
			120 Hz	**20 kHz - 40 kHz**	**120 Hz**	**20 kHz - 40 kHz**	
6.3 WVDC At 105 °C, SURGE = 8 V							
470.0	757D477M6R3BB4D	0.315 x 0.472 [8.0 x 12.0]	523.0	163.0	0.47	0.658	198.0
680.0	757D687M6R3CC4D	0.394 x 0.512 [10.0 x 13.0]	310.0	98.0	0.65	0.907	120.0
820.0	757D827M6R3CD4D	0.394 x 0.630 [10.0 x 16.0]	194.0	77.0	0.88	1.09	96.0
1200.0	757D128M6R3CG4D	0.394 x 0.787 [10.0 x 20.0]	130.0	53.0	1.20	1.47	65.0
2200.0	757D228M6R3DG4D	0.492 x 0.787 [12.5 x 20.0]	113.0	38.0	1.33	1.81	49.0
2700.0	757D278M6R3DK4D	0.492 x 0.984 [12.5 x 25.0]	76.0	31.0	1.78	2.18	40.0
3900.0	757D398M6R3DT4D	0.492 x 1.319 [12.5 x 33.5]	49.0	20.0	2.45	2.98	26.0
5600.0	757D568M6R3DS4D	0.492 x 1.673 [12.5 x 42.5]	34.0	17.0	3.26	3.61	21.0
5600.0	757D568M6R3EK4D	0.630 x 0.984 [16.0 x 25.0]	62.0	22.0	2.15	2.82	28.0
6800.0	757D688M6R3EN4D	0.630 x 1.260 [16.0 x 32.0]	43.0	19.0	2.84	3.35	24.0
8200.0	757D828M6R3ER4D	0.630 x 1.417 [16.0 x 36.0]	35.0	16.0	3.30	3.82	20.0
12 000.0	757D129M6R3EU4D	0.630 x 1.575 [16.0 x 40.0]	31.0	14.0	3.63	4.24	18.0
12 000.0	757D129M6R3FR4D	0.709 x 1.417 [18.0 x 36.0]	38.0	16.5	3.20	3.83	21.0
15 000.0	757D159M6R3FV4D	0.709 x 1.575 [18.0 x 40.0]	32.0	15.0	3.68	4.28	19.0

Note
Case Style 3 = PVC sleeve with resin seal standard. Required for exposure to halogenated cleaning solvents. Case style 4 = PVC sleeve.

STANDARD RATINGS in inches [millimeters]							
CAPACITANCE (µF)	PART NUMBER	NOMINAL CASE SIZE D x L	Max. ESR At + 25 °C (mΩ)		Max. RIPPLE At + 105 °C(A)		Max. Z At + 25 C(mΩ) 100 Hz
			120 Hz	20 kHz - 40 kHz	120 Hz	20 kHz - 40 kHz	
10 WVDC At 105 °C, SURGE = 13 V							
330.0	757D337M010BB4D	0.315 x 0.472 [8.0 x 12.0]	576.0	163.0	0.45	0.658	198.0
470.0	757D477M010CC4D	0.394 x 0.512 [10.0 x 13.0]	340.0	98.0	0.62	0.907	120.0
560.0	757D567M010CD4D	0.394 x 0.630 [10.0 x 16.0]	212.0	77.0	0.84	1.09	96.0
1000.0	757D108M010CG4D	0.394 x 0.787 [10.0 x 20.0]	142.0	53.0	1.14	1.47	65.0
1800.0	757D188M010DG4D	0.492 x 0.787 [12.5 x 20.0]	123.0	38.0	1.28	1.81	49.0
2200.0	757D228M010DK4D	0.492 x 0.984 [12.5 x 25.0]	82.0	31.0	1.71	2.18	40.0
10 WVDC At 105 °C, SURGE = 13 V							
2700.0	757D278M010DT4D	0.492 x 1.319 [12.5 x 33.5]	53.0	20.0	2.35	2.98	26.0
3900.0	757D398M010DS4D	0.492 x 1.673 [12.5 x 42.5]	37.0	17.0	3.13	3.61	21.0
3900.0	757D398M010EK4D	0.630 x 0.984 [16.0 x 25.0]	66.0	22.0	2.15	2.82	28.0
5600.0	757D568M010EN4D	0.630 x 1.260 [16.0 x 32.0]	45.0	19.0	2.77	3.35	24.0
6800.0	757D688M010ER4D	0.630 x 1.417 [16.0 x 36.0]	37.0	16.0	3.22	3.82	20.0
8200.0	757D828M010EU4D	0.630 x 1.575 [16.0 x 40.0]	33.0	14.0	3.54	4.24	18.0
8200.0	757D828M010FR4D	0.709 x 1.417 [18.0 x 36.0]	40.0	16.5	3.14	3.83	21.0
10 000.0	757D109M010FV4D	0.709 x 1.575 [18.0 x 40.0]	33.0	15.0	3.61	4.28	19.0
16 WVDC At 105 °C, SURGE = 20 V							
270.0	757D277M016BB4D	0.315 x 0.472 [8.0 x 12.0]	703.0	163.0	0.40	0.658	198.0
330.0	757D337M016CC4D	0.394 x 0.512 [10.0 x 13.0]	410.0	98.0	0.56	0.907	120.0
390.0	757D397M016CD4D	0.394 x 0.630 [10.0 x 16.0]	257.0	77.0	0.77	1.09	96.0
680.0	757D687M016CG4D	0.394 x 0.787 [10.0 x 20.0]	171.0	53.0	1.04	1.47	65.0
1200.0	757D128M016DG4D	0.492 x 0.787 [12.5 x 20.0]	145.0	38.0	1.26	1.81	49.0
1500.0	757D158M016DK4D	0.492 x 0.984 [12.5 x 25.0]	97.0	31.0	1.57	2.18	45.0
2200.0	757D228M016DT4D	0.492 x 1.319 [12.5 x 33.5]	62.0	20.0	2.17	2.98	26.0
3300.0	757D338M016DS4D	0.492 x 1.673 [12.5 x 42.5]	43.0	17.0	2.88	3.61	21.0
2700.0	757D278M016EK4D	0.630 x 0.984 [16.0 x 25.0]	74.0	22.0	2.15	2.82	28.0
3900.0	757D398M016EN4D	0.630 x 1.260 [16.0 x 32.0]	51.0	19.0	2.61	3.35	24.0
4700.0	757D478M016ER4D	0.630 x 1.417 [16.0 x 36.0]	41.0	16.0	3.04	3.82	20.0
5600.0	757D568M016EU4D	0.630 x 1.575 [16.0 x 40.0]	37.0	14.0	3.34	4.24	18.0
6800.0	757D688M016FR4D	0.709 x 1.417 [18.0 x 36.0]	44.0	16.5	3.01	3.83	21.0
8200.0	757D828M016FV4D	0.709 x 1.575 [18.0 x 40.0]	36.0	15.0	3.45	4.28	19.0
25 WVDC At 105 °C, SURGE = 32 V							
180.0	757D187M025BB4D	0.315 x 0.472 [8.0 x 12.0]	851.0	163.0	0.37	0.658	198.0
220.0	757D227M025CC4D	0.394 x 0.512 [10.0 x 13.0]	493.0	98.0	0.51	0.907	120.0
270.0	757D277M025CD4D	0.394 x 0.630 [10.0 x 16.0]	308.0	77.0	0.70	1.09	96.0
470.0	757D477M025CG4D	0.394 x 0.787 [10.0 x 20.0]	206.0	53.0	0.95	1.47	65.0
820.0	757D827M025DG4D	0.492 x 0.787 [12.5 x 20.0]	171.0	38.0	1.12	1.81	49.0
1000.0	757D108M025DK4D	0.492 x 0.984 [12.5 x 25.0]	114.0	31.0	1.45	2.18	40.0
1500.0	757D158M025DT4D	0.492 x 1.319 [12.5 x 33.5]	73.0	20.0	1.99	2.98	26.0
2200.0	757D228M025DS4D	0.492 x 1.673 [12.5 x 42.5]	51.0	17.0	2.66	3.61	21.0
1800.0	757D188M025EK4D	0.630 x 0.984 [16.0 x 25.0]	83.0	22.0	2.15	2.82	28.0
2700.0	757D278M025EN4D	0.630 x 1.260 [16.0 x 32.0]	57.0	19.0	2.46	3.35	24.0
3300.0	757D338M025ER4D	0.630 x 1.417 [16.0 x 36.0]	47.0	16.0	2.87	3.82	20.0
3900.0	757D398M025EU4D	0.630 x 1.575 [16.0 x 40.0]	41.0	14.0	3.15	4.24	18.0
3900.0	757D398M025FR4D	0.709 x 1.417 [18.0 x 36.0]	48.0	16.5	2.87	3.83	21.0
4700.0	757D478M025FV4D	0.709 x 1.575 [18.0 x 40.0]	40.0	15.0	3.30	4.28	19.0

Note

Case Style 3 = PVC sleeve with resin seal standard. Required for exposure to halogenated cleaning solvents. Case style 4 = PVC sleeve.

Aluminum Capacitors
+ 105 °C, Miniature, Radial Lead

STANDARD RATINGS in inches [millimeters]							
CAPACITANCE (µF)	**PART NUMBER**	**NOMINAL CASE SIZE D x L**	**Max. ESR At + 25 °C (mΩ)**		**Max. RIPPLE At + 105 °C(A)**		**Max. Z At + 25 C(mΩ) 100 Hz**
			120 Hz	**20 kHz - 40 kHz**	**120 Hz**	**20 kHz - 40 kHz**	
35 WVDC At 105 °C, SURGE = 44 V							
120.0	757D127M035BB4D	0.315 x0 .472 [8.0 x 12.0]	1073.0	163.0	0.33	0.658	198.0
150.0	757D157M035CC4D	0.394 x 0.512 [10.0 x 13.0]	617.0	98.0	0.46	0.907	120.0
180.0	757D187M035CD4D	0.394 x 0.630 [10.0 x 16.0]	386.0	77.0	0.62	1.09	96.0
330.0	757D337M035CG4D	0.394 x 0.787 [10.0 x 20.0]	257.0	53.0	0.85	1.47	65.0
560.0	757D567M035DG4D	0.492 x 0.787 [12.5 x 20.0]	210.0	38.0	1.12	1.81	49.0
680.0	757D687M035DK4D	0.492 x 0.984 [12.5 x 25.0]	140.0	31.0	1.35	2.18	40.0
1000.0	757D108M035DT4D	0.492 x 1.319 [12.5 x 33.5]	90.0	20.0	1.80	2.98	26.0
1500.0	757D158M035DS4D	0.492 x 1.673 [12.5 x 42.5]	63.0	17.0	2.40	3.61	21.0
1200.0	757D128M035EK4D	0.630 x 0.984 [16.0 x 25.0]	97.0	22.0	2.15	2.82	28.0
1800.0	757D188M035EN4D	0.630 x 1.260 [16.0 x 32.0]	67.0	19.0	2.28	3.35	24.0
2200.0	757D228M035ER4D	0.630 x 1.417 [16.0 x 36.0]	54.0	16.0	2.65	3.82	20.0
2700.0	757D278M035EU4D	0.630 x 1.575 [16.0 x 40.0]	48.0	14.0	2.92	4.24	18.0
2700.0	757D278M035FR4D	0.709 x 1.417 [18.0 x 36.0]	54.0	16.5	2.69	3.83	21.0
3300.0	757D338M035FV4D	0.709 x 1.575 [18.0 x 40.0]	45.0	15.0	3.09	4.28	19.0

Note

Case Style 3 = PVC sleeve with resin seal standard. Required for exposure to halogenated cleaning solvents. Case style 4 = PVC sleeve.

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