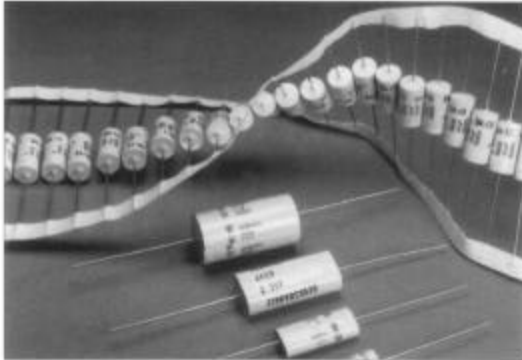


### Type AREM, AFEO



Insulation Resistance		
Category	≤100VDC	>100VDC
MegOhms x $\mu$ F	1,000	5,000
MegOhms Maximum (Need Not Exceed)	10,000	30,000
Test Voltage	50VDC	100VDC
Electrification Time	1 Minute	1 Minute

#### Physical

- |                      |   |
|----------------------|---|
| Dielectric Material  | • Polyester (metallized)  |
| Electrode Material   | • Vapor deposited aluminium   |
| Winding Construction | • Non-inductive, extended metallized film   |
| Lead Material        | • Tinned wire   |
| Enclosure            | • Tape wrap with epoxy endfill.   |
| Component Marking    | • Logo, type, capacitance value, tolerance, rated voltage and date code   |
| Temperature Range    | • -55°C to 125°C<br>-55°C to 85°C at Rated Voltage<br>From 85°C to 125°C derate DC voltage rating 1.25%/°C, AC voltage 1.5%/°C. |
| Temperature Coef.    | • $\pm$ 5% from -40°C to 85°C   |
| Flame Retardancy     | • Units meet standard industry requirements when tested as specified per IEC 695-2-2 and UL 94 VO.                              |
| Packaging            | • Bulk or tape & reel   |

#### Electrical

- |                       |  |
|-----------------------|--|
| Capacitance Range     | • .010 $\mu$ F to 20.0 $\mu$ F @ 1KHz (AREM)<br>• .047 $\mu$ F to 20.0 $\mu$ F @ 1KHz (AFEO) |
| Tolerance             | • $\pm$ 5%, $\pm$ 10% (J,K)  |
| Voltage Range         | • 63VDC to 630VDC (AREM)<br>• 100VDC to 400VDC (AFEO)  |
| Dissipation Factor    | • $\leq$ 0.8% @ 1KHz   |
| Dielectric Strength   | • 1.6 x rated VDC  |
| Dielectric Absorption | • .30% typical   |
| Insulation Resistance | • See table  |

#### Long Term Stability

+2.0% (AREM), +1.5% (AFEO) over two years at a temperature of between 20°C & 40°C and a RH of between 40% and 60%.

#### Performance Testing

##### Accelerated Dry Life:

- |                 |                           |
|-----------------|---------------------------|
| Test Conditions |                           |
| Temperature     | • 85°C $\pm$ 5.0°C        |
| Applied Voltage | • 1.25 x rated DC voltage |
| Test Duration   | • 1000 hours              |

##### Performance Requirements

- |                       |                               |
|-----------------------|-------------------------------|
| Capacitance           | • delta of $\leq$ 5.0%        |
| Dissipation Factor    | • $\leq$ 1.0% @ 1KHz          |
| Insulation Resistance | • $\geq$ 30% of initial limit |

##### Humidity:

- |                 |                    |
|-----------------|--------------------|
| Test Conditions |                    |
| Temperature     | • 40°C $\pm$ 2.0°C |
| Applied Voltage | • Zero Voltage     |
| Humidity        | • 93% $\pm$ 2% RH  |
| Test Duration   | • 500 hours        |

##### Performance Requirements

- |                       |                               |
|-----------------------|-------------------------------|
| Capacitance           | • delta of $\leq$ 5.0%        |
| Dissipation Factor    | • $\leq$ 1.0% @ 1KHz          |
| Insulation Resistance | • $\geq$ 50% of initial limit |

##### Resistance To Solder Heat:

- |                    |                             |
|--------------------|-----------------------------|
| Test Conditions    |                             |
| Solder Temperature | • 260°C $\pm$ 5.0°C         |
| Test Duration      | • 10 seconds $\pm$ 1 second |

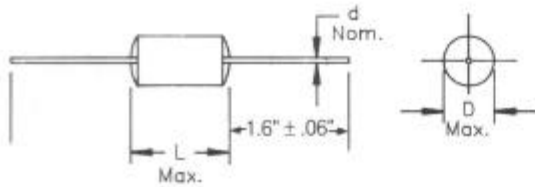
##### Performance Requirements

- |             |                        |
|-------------|------------------------|
| Capacitance | • delta of $\leq$ 2.0% |
|-------------|------------------------|

##### Lead Pull:

Must withstand a tensile force of 5 lbs applied to each lead for 5 seconds.

### Type AREM



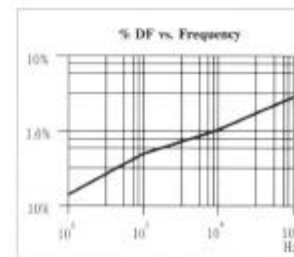
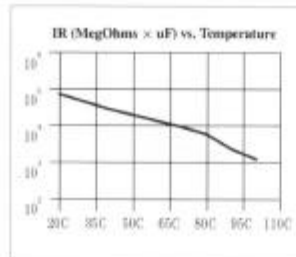
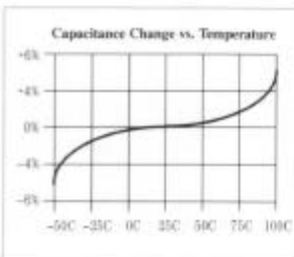
### Part Numbering System

Example: 0.10µF ±10%, 100Vdc, Bulk Package

AREM	104	10	K	AB	K
Type	Capacitance Code	Voltage Code	Tolerance Code	Case Code	Packaging Code

Capacitance µF Code	Voltage Code 06 63 Vdc (40 Vac)		Voltage Code 10 100 Vdc (63 Vac)		Voltage Code 25 250 Vdc (160 Vac)		Voltage Code 40 400 Vdc (200 Vac)		Voltage Code 63 630 Vdc (220 Vac)		
	Dimensions Inches D & L	Case Code	Dimensions Inches D & L	Case Code	Dimensions Inches D & L	Case Code	Dimensions Inches D & L	Case Code	Dimensions Inches D & L	Case Code	
0.0010	102								.197 x .433	AB	
0.0015	152								.197 x .433	AB	
0.0022	222								.197 x .433	AB	
0.0033	332								.197 x .433	AB	
0.0047	472								.197 x .433	AB	
0.0068	682								.197 x .433	AB	
0.010	103						.197 x .433	AB	.236 x .650	CE	
0.015	153				.197 x .433	AB	.236 x .650	CE	.236 x .650	CE	
0.022	223				.197 x .433	AB	.236 x .650	CE	.276 x .650	EE	
0.033	333				.197 x .433	AB	.236 x .650	CE	.295 x .807	FI	
0.047	473				.197 x .433	AB	.276 x .650	EE	.295 x .807	FI	
0.068	683			.197 x .433	AB	.236 x .650	CE	.276 x .807	EI	.354 x .807	II
0.10	104		.197 x .433	AB	.256 x .650	DE	.295 x .807	FI	.335 x 1.10	HO	
0.15	154	.197 x .433	AB	.236 x .650	CE	.296 x .650	FE	.354 x .807	II	.394 x 1.10	KO
0.22	224	.236 x .650	CE	.256 x .650	DE	.335 x .650	HE	.335 x 1.10	HO	.453 x 1.10	NO
0.33	334	.236 x .650	CE	.295 x .650	FE	.312 x .750	GF	.394 x 1.10	KO	.551 x 1.10	SO
0.47	474	.276 x .650	EE	.315 x .650	GE	.354 x .750	IF	.453 x 1.10	NO	.591 x 1.30	UP
0.68	684	.276 x .807	EI	.335 x .807	HI	.354 x 1.10	IO	.453 x 1.30	NP	.591 x 1.81	UU
1.00	105	.315 x .807	GI	.394 x .807	KI	.431 x 1.10	LO	.531 x 1.30	RP	.709 x 1.81	1U
1.50	155	.374 x .807	JI	.394 x 1.10	KO	.472 x 1.10	OO	.591 x 1.81	UU		
2.20	225	.374 x 1.10	JO	.453 x 1.10	NO	.512 x 1.10	PO	.669 x 1.81	YU		
3.30	335	.394 x 1.10	KO	.512 x 1.10	PO	.630 x 1.30	WP				
4.70	475	.512 x 1.10	PO	.512 x 1.30	RP	.669 x 1.30	YP				
6.80	685	.472 x 1.30	OP	.630 x 1.30	WP	.669 x 1.81	YU				
10.00	106	.571 x 1.30	TP	.729 x 1.30	2P	.807 x 1.81	2U				
12.00	126					.886 x 1.81	3U				
15.00	156					.965 x 1.81	4U				
20.00	206					1.08 x 1.81	5U				

Case Code	Dimensions mm D & L
AB	5 x 11
CE	6 x 16.5
DE	6.5 x 16.5
EE	7 x 16.5
EI	7 x 20.5
FE	7.5 x 16.5
FI	7.5 x 20.5
GE	8 x 16.5
GF	8 x 19
GI	8 x 20.5
HE	8.5 x 16.5
HI	8.5 x 20.5
HO	8.5 x 28
IF	9 x 19
II	9 x 20.5
IO	9 x 28
JI	9.5 x 20.5
JO	9.5 x 28
KI	10 x 20.5
KO	10 x 28
LO	10.5 x 28
NO	11.5 x 28
NP	11.5 x 33
OO	12 x 28
OP	12 x 33
PO	13 x 28
RP	13 x 33
SO	14 x 28
TP	14.5 x 33
UP	15 x 33
UU	15 x 46
WP	16 x 33
WU	16 x 46
YP	17 x 33
YU	17 x 46
1U	18 x 46
2P	18.5 x 33
2U	20.5 x 46
3U	22.5 x 46
4U	24.5 x 46
5U	27.4 x 46



D	d	AWG
≤ 276 IN. (7mm)	.025 IN. (.6mm)	#22
> 276 IN. (7mm)	.032 IN. (.8mm)	#20
> 709 IN. (18mm)	.040 IN. (1.016mm)	#18