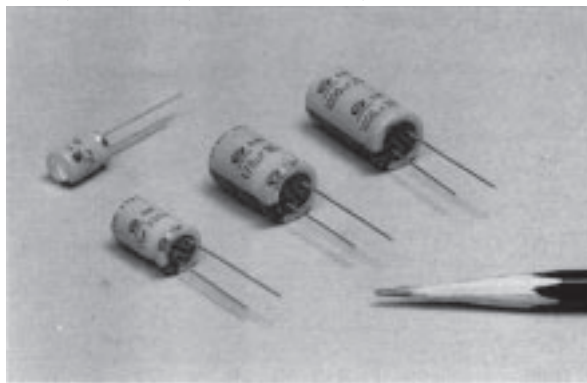


Features

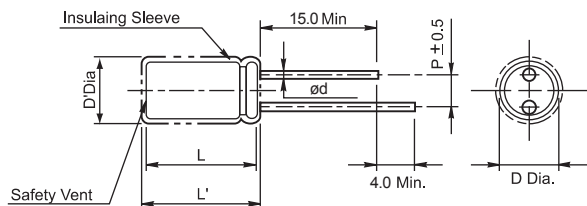
- Miniature, Radial (Smaller than RSF)
- Low impedance value at high frequency
- High performance and reliability
- Load life of 2000 hours at 105°C
- Possible cleaning by Freon TE, TES, TMS (5 min)



Specifications

Item	Performance Characteristics							
Operating temperature range	-55°C ~ +105°C							
Rated working voltage range	6.3V ~ 63V							
Nominal capacitance range	0.47 μF ~ 6800 μF, ±20% (at 20°C, 120Hz)							
D.C Leakage current(at 20°C)	The following specifications shall be satisfied when the rated voltage is applied for the required time. $I \leq 0.01CV$ (2 min) Where I=Leakage current(μA) C=Nominal capacitance(μF) V=Rated voltage (V)							
Tan δ(max., at 20°C, 120Hz)	W.V(V)	6.3	10	16	25	35	50	63
	Tan δ	0.22	0.19	0.16	0.14	0.12	0.10	0.08
When capacitance is over 1000 μF, Tan δ shall be added 0.02 to the listed value with increase of every each 1000 μF.								
Characteristics at low temperature(max.) (impedance ratio at 120Hz)	W.V(V)	6.3~10		16		25~63		
	Z-55°C/Z20°C	3		2		2		
Load life	After applying rated working voltage for 2000 hours at +105°C and then being stabilized at +20°C, capacitors shall meet following limits.(5, 6.3, 8ø: 1000 Hours)							
	Capacitance change	Within ± 20% of initial measured value						
	Tan δ	≤ 200% of initial specified value						
	Leakage current	≤ Initial specified value						
Shelf life	After storage for 1000 hours at +105°C with no voltage applied and then being stabilized at +20°C, capacitors shall meet following limits.							
	Capacitance change	Within ± 20% of initial measured value						
	Tan δ	≤ 150% of initial specified value						
	Leakage current	≤ 200% of initial specified value						

Case sizes and Dimensions



• Standard lead style

øD	5.0	6.3	8.0	10.0	13.0	16.0
P	2.0	2.5	3.5	5.0		7.5
ød	0.5		0.6			0.8

 $D' = [D + 0.5] \text{Max.}$
 $L' = [L + 1.0] \text{Max. at } D \leq 8.0$
 $L' = [L + 1.5] \text{Max.}$

Ripple current coefficient

• Frequency

W.V	Freq(Hz)	50	120	300	1K	10K~100K
6.3~16V		0.54	0.70	0.85	0.95	1
25~35V		0.43	0.57	0.73	0.88	1
50~63V		0.39	0.55	0.71	0.86	1

• Temperature

Temperature	≤ 45°C	65°C	85°C	105°C
Factor	2.4	2.2	1.7	1.0

Standard ratings [Dimensions, Impedance, Ripple Current]

øD x L(mm)

W.V(V) Cap(µF)	6.3(0J)			10(1A)			16(1C)			25(1E)		
	SIZE	Z	I _R	SIZE	Z	I _R	SIZE	Z	I _R	SIZE	Z	I _R
33										5x11	1.67	180
47							5x11	1.40	178	6.3x11	1.25	228
68				5x11	1.72	152	6.3x11	0.98	192	6.3x11	0.78	235
100	5x11	1.8	163	6.3x11	1.20	217	6.3x11	0.77	225	8x11.5	0.55	310
150	6.3x11	1.05	225	6.3x11	0.85	277	8x11.5	0.53	337	10x12.5	0.44	440
220	6.3x11	0.75	300	8x11.5	0.56	365	10x12.5	0.37	485	10x16	0.26	620
330	8x11.5	0.48	395	10x12.5	0.38	521	10x16	0.24	670	10x20	0.21	810
470	10x12.5	0.32	580	10x16	0.25	690	10x20	0.22	850	10x20	0.14	1010
680	10x16	0.24	750	10x20	0.17	955	10x20	0.14	1080	13x20	0.13	1295
1000	10x20	0.18	795	10x20	0.14	980	13x20	0.086	1150	13x25	0.071	1410
1500	10x20	0.14	920	13x20	0.087	1100	13x25	0.072	1395	16x25	0.063	1650
2200	13x20	0.089	1170	13x25	0.073	1390	16x25	0.064	1680	16x31.5	0.053	2020
3300	13x25	0.075	1500	16x25	0.065	1750	16x31.5	0.053	1970	16x35.5	0.045	2480
4700	16x25	0.066	1820	16x31.5	0.054	2100	16x35.5	0.046	2550			
6800	16x31.5	0.055	2150	16x35.5	0.046	2550						

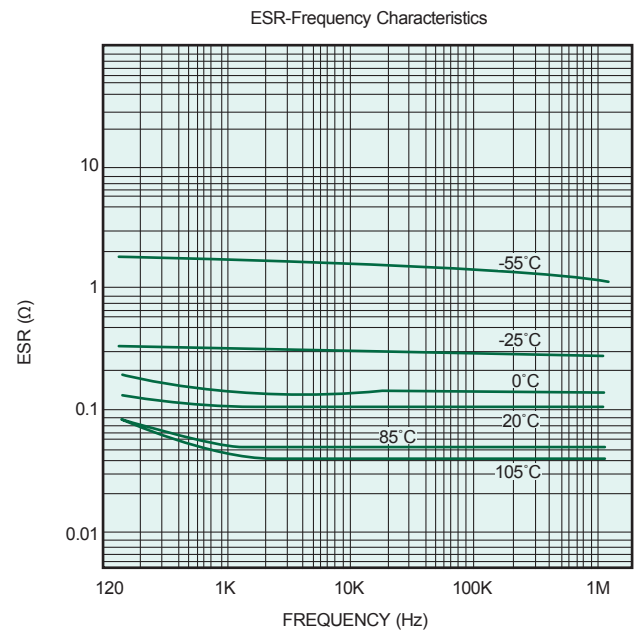
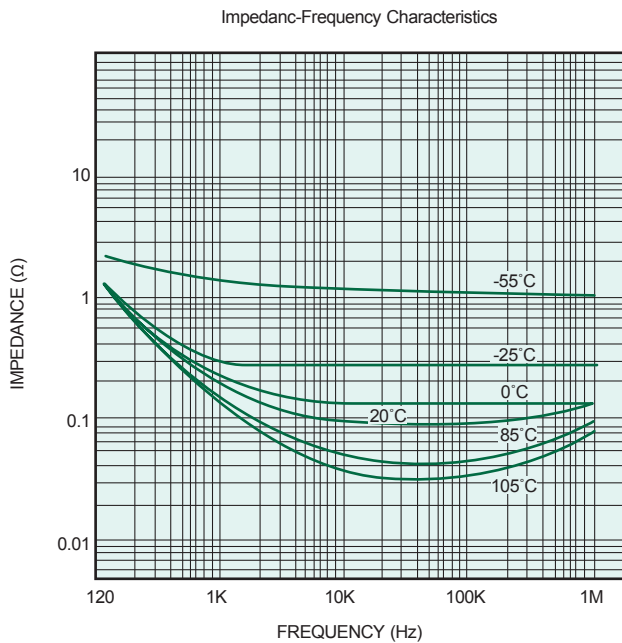
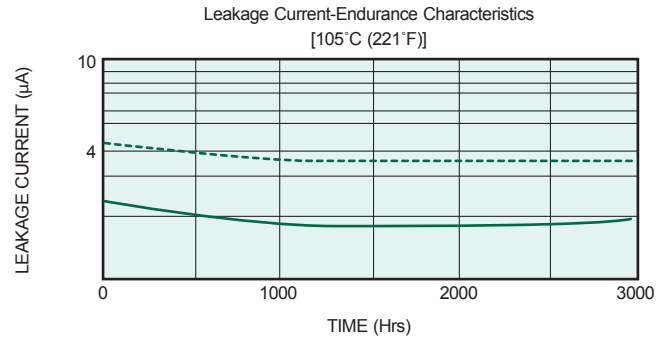
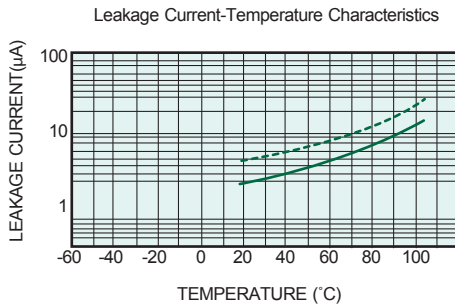
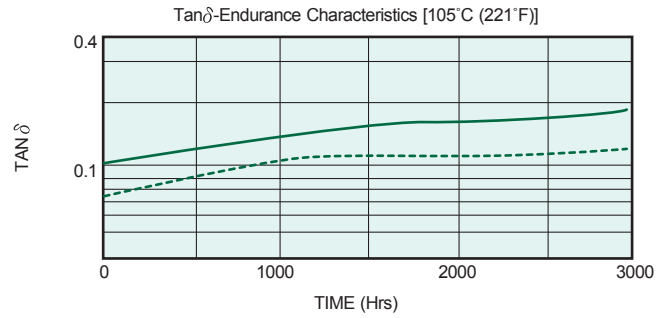
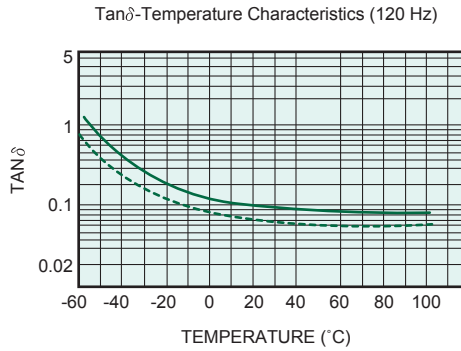
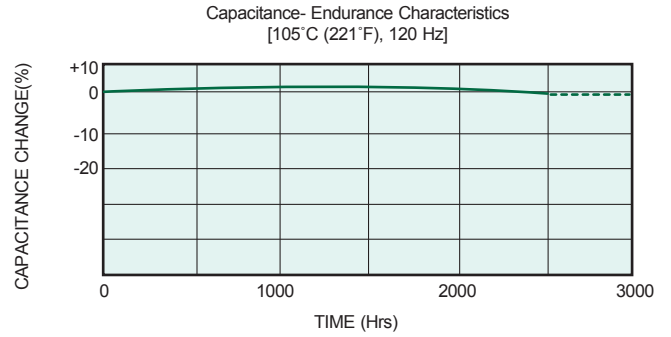
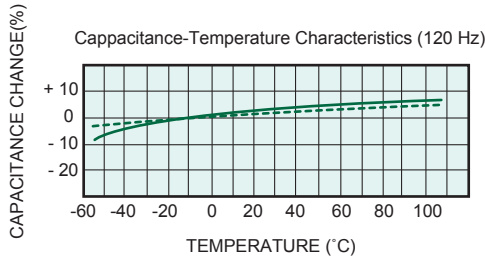
W.V(V) Cap(µF)	35(1V)			50(1H)			63(1J)		
	SIZE	Z	I _R	SIZE	Z	I _R	SIZE	Z	I _R
0.47							5x11	28	20
0.68							5x11	25	30
1.0				5x11	20.0	38	5x11	20	38
1.5				5x11	14.0	51	5x11	14	51
2.2				5x11	9.0	64	5x11	9.0	64
3.3				5x11	6.5	78	5x11	6.5	78
4.7				5x11	5.0	90	5x11	5.0	90
6.8				5x11	3.2	110	5x11	3.2	110
10				5x11	2.2	128	5x11	2.2	128
15				5x11	1.4	160	6.3x11	1.4	165
22	5x11	1.60	159	6.3x11	1.0	210	6.3x11	1.0	220
33	6.3x11	0.95	211	6.3x11	0.66	270	8x11.5	0.50	285
47	6.3x11	0.77	270	8x11.5	0.50	388	10x12.5	0.25	400
68	8x11.5	0.55	300	10x12.5	0.25	420	10x16	0.20	450
100	10x12.5	0.32	405	10x16	0.20	530	10x20	0.13	560
150	10x16	0.25	540	10x20	0.13	750	10x20	0.11	775
220	10x20	0.20	710	10x20	0.11	925	13x20	0.081	980
330	10x20	0.14	920	13x20	0.081	1250	13x25	0.068	1295
470	13x20	0.083	1250	13x25	0.068	1700	16x25	0.060	1780
680	13x25	0.070	1670	16x25	0.060	2190	16x31.5	0.050	2220
1000	16x25	0.063	1700	16x31.5	0.050	2270	16x35.5	0.048	2330
1500	16x31.5	0.052	2010	16x35.5	0.048	2490			
2200	16x31.5	0.044	2350						

I_r : Maximum permissible ripple current[mA(rms) at 105°C,100KHz]

Z : Max. Impedance[Ω at 20°C,100KHz]

PERFORMANCE CURVES

———— 10V-1,000 μ F
 - - - - - 16V-2,200 μ F



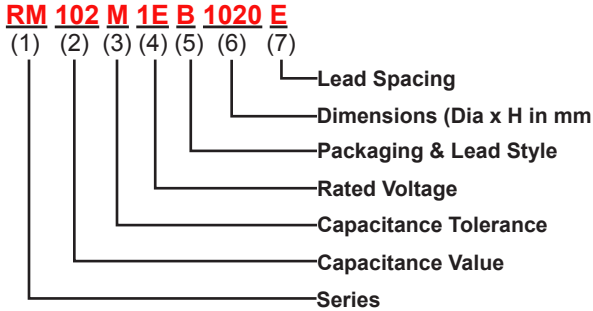
ORDERING INFORMATION for Leaded Type



Daewoo Components Corp.

Through-Hole Part Numbering System Example:

RM = Leaded Radial 85°C Miniature Series, **102** = 1000µF, **M** =20% Tolerance, **1E** 25 Volts, **B** = Bulk,
1020 = Case size (Dia x H) = 10.0 x 20.0mm, **E** = 5.0mm



(1) Series

See Quick Guide on page 2
Example: RSS, RM, RMU,...

(2) Capacitance Value Code

Capacitance expressed in micro Farads (µF)
First two digits are significant figures
Third digit denotes the number of zeros
Use R for decimal point for values less than 10µF

Examples:

CODE	Capacitance
R10	0.1 µF
R68	0.68 µF
1R0	1.0 µF
100	10 µF
680	68 µF
471	470 µF
102	1000 µF
103	10000 µF

(3) Capacitance Tolerance Code

CODE	Cap. Tol.	CODE	Cap. Tol.
J	±5%	V	-10% ~ +20%
K	±10%	Q	-10% ~ +30%
M	±20%	T	-10% ~ +50%
R	+20%, -0%		

(4) Rated Voltage Code

CODE	Voltage	CODE	Voltage
0G	4.0V	2C	160V
0J	6.3V	2S	180V
1A	10V	2D	200V
1C	16V	2E	250V
1E	25V	2F	315V
1V	35V	2V	350V
1H	50V	2G	400V
1J	63V	2W	450V
1K	80V	3Z	1000V
2A	100V		

(5) Packaging Form & Lead Style Code (see page 7, 8, 9 for details)

	Code	Packaging Form & Lead Style
Bulk	B	Bulk: Standard Package
	L	Bulk: 4 -8ø Long Leads Formed to 5 mm Pitch
Snap-In	1	10-13ø Snap-in Cut 5.0mm
	2	16-13ø Snap-in Cut 5.0mm
	3	10-13ø Snap-in Cut 4.5mm
	4	16-18ø Snap-in Cut 4.5mm
	5	4-8ø Snap-in Cut 7.5mm
Form	F	4-8ø Forming Cut 6.5mm
	G	4-8ø Forming Cut 10.0mm
Straight Cut	C	4-18ø Straight Cut 4.0mm
	6	4-18ø Straight Cut 3.1mm
	7	4-18ø Straight Cut 5.0mm
	8	4-18ø Straight Cut 6.35mm
Ammo Tape (+) Leading	A	4-8ø Straight Ammo
		Detail Ranges: 4-6.3ø; F=2.5mm 8ø; F=3.5mm
		4-8ø Form Tape & Ammo 5mm Pitch
		10ø Straight Ammo Tape 5mm Pitch
		13ø Straight Ammo Tape 5mm Pitch
16-18ø Straight Ammo Tape 5mm Pitch		
Tape & Reel (+) Leading	T	4-8ø Straight Ammo
		Detail Ranges: 4-6.3ø; F=2.5mm 8ø; F=3.5mm
		4-13ø Form Tape & Reel 5mm Pitch 10-13ø Straight Reel Tape 5mm Pitch

NOTE: Standard Pack Anode(+) Lead Leading FEEDS OFF FIRST
Special Option Cathode(-) Lead Leading available upon request
Standard Packages: B = Bulk, A = Ammo, T = Tape & Reel

(6) Example Dimension Code (Diameter x Height in mm)

Size Code	Diameter	Height	Size Code	Diameter	Height
0405	4	5	1320	13	20
0407	4	7	1631	16	31.5
0505	5	5	1835	18	35.5
0507	5	7	2240	22	40
0607	6.3	7	2545	25	45
0511	5	11	3035	30	35
0605	6	5	3500	35	100
0611	6.3	11	3501	35	110
0805	8	5	5102	51	120
0811	8	11	6303	63.5	130
1012	10	12.5	7604	76	140
1220	12.5	20	8904	89	140

(7) Lead Spacing Code (LS)

Code	X	A	B	C	D	E	J	F
LS	1.0	1.5	2.0	2.5	3.5	5.0	7.0	7.5
Code	K	M	G	P	H	Q	R	S
LS	8.0	10.0	10.5	12.0	12.5	12.8	15.0	16.0
Code	T	U	V	W	Y	Z		
LS	20.0	21.7	28.3	30.0	31.6	32		