

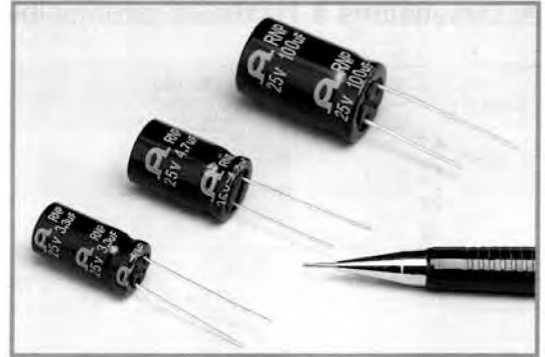


# RNP SERIES

## Speaker Network, Bi-Polar, Radial Leads

### Features

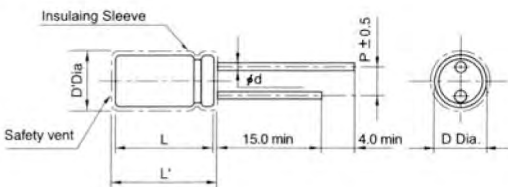
- Bi-polar, Radial
- For speaker crossover networks, Hi-fi audio.
- Excellent frequency characteristics
- Low dissipation factor
- Load life of 1000 hours at 85°C



### Specifications

Item	Performance Characteristics		
Operating temperature range	-40°C ~ +85°C		
Rated working voltage range	25V ~ 50V		
Nominal capacitance range	1.0 $\mu$ F ~ 100 $\mu$ F, $\pm$ 20% or $\pm$ 10%(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. $I \leq 0.04CV + 10\mu A(5 \text{ min})$ Where I=Leakage current( $\mu$ A)    C=Nominal capacitance( $\mu$ F)    V=Rated voltage(V)		
Tan $\delta$ (max., at 20°C, 120Hz)	W.V(V)	25	50
	120Hz	0.1	0.075
	10KHz(10 $\mu$ F $\geq$ )	0.2	0.1
	1KHz(10 $\mu$ F <)	0.2	0.1
Characteristics of impedance	W.V(V)	25	50
	Impedance constant( $\Omega$ - $\mu$ F)	15	12
Load life	*Impedance( $\Omega$ ) at 20KHz x Nominal capacitance( $\mu$ F)		
	After applying rated working voltage for 1000 hours at +85°C with the polarity inverted every 250 hours and then being stabilized at +20°C, capacitors shall meet following limits.		
	Capacitance change	Within $\pm$ 20% of the initial measured value	
	Tan $\delta$	$\leq$ 200% of the initial specified value	
Shelf life	Leakage current $\leq$ The initial specified value		
	After storage for 500hours at +85°C with no voltage applied and then being stabilized at +20°C, capacitors shall meet following limits.		
	Capacitance change	Within $\pm$ 20% of the initial measured value	
	Tan $\delta$	$\leq$ 150% of the initial specified value	
	Leakage current	$\leq$ 200% of the initial specified value	

### Dimensions



#### Standard lead style

$\phi$ D	10.0	12.5	16.0	18.0
p	5.0		7.5	
$\phi$ d	0.6		0.8	

D' = [D+0.5]Max.    L' = [L+1.5]Max. at D  $\geq$  10.0

### Dimensions & Maximum permissible ripple current

$\phi$  D x L(mm)

Cap( $\mu$ F)	W.V(V)	25(1E)		50(1H)	
		Case Size	I <sub>r</sub>	Case Size	I <sub>r</sub>
1.0		10x16	33	10x20	38
1.5		10x20	40	10x20	46
2.2		10x20	48	12.5x25	71
3.3		10x20	59	12.5x25	88
4.7		12.5x20	82	12.5x25	104
6.8		12.5x20	98	12.5x25	126
10		12.5x20	121	12.5x25	153
15		12.5x20	150	12.5x25	187
22		12.5x20	180	12.5x25	226
33		12.5x25	237	16x25	312
47		12.5x25	290	16x25	373
68		12.5x25	340	16x25	441
100		16x25	474	18x31.5	638

I<sub>r</sub>: Maximum permissible ripple current[mA(rms) at 85°C, 120Hz]

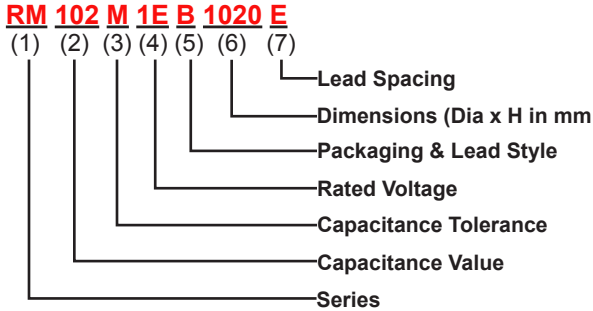
# ORDERING INFORMATION for Leaded Type



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		