

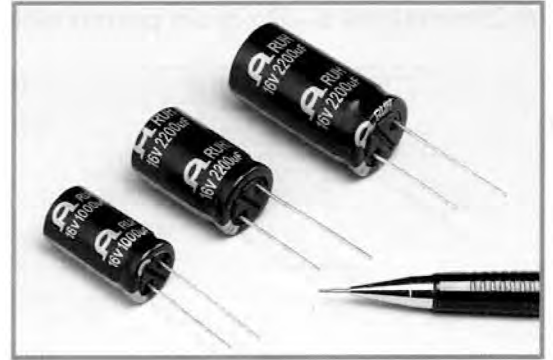


RUH SERIES

105°C High Performance, Radial Leads

Features

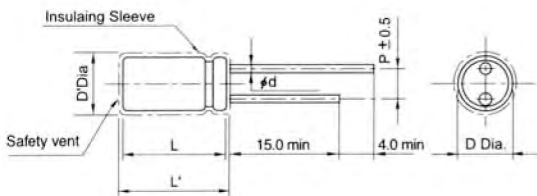
- 105°C High performance, Radial
- General and industrial application
- Ideal for automatic insertion
- Load life of 3000 hours at 105°C



Specifications

Item	Performance Characteristics							
Operating temperature range	-40°C ~ +105°C							
Rated working voltage range	6.3V ~ 250V							
Nominal capacitance range	4.7 μF ~ 10000 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. $I \leq 0.01CV + 3\mu A(2 \text{ min})$ 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	50~100	160~250	
	Tan δ	0.28	0.24	0.20	0.17	0.15	0.12	
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	35	50~100	160~250
	Z-25°C/Z20°C	4	3	2	2	2	2	2
	Z-40°C/Z20°C	8	6	4	4	4	4	3
Load life	After applying rated working voltage for 3000 hours at +105°C and then being stabilized at +20°C, capacitors shall meet following limits.							
	Capacitance change	Within ±20% of the initial measured value						
	Tan δ	≤ 200% of the initial specified value						
	Leakage current	≤ The 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 the initial measured value						
	Tan δ	≤ 200% of the initial specified value						
	Leakage current	≤ 200% of the initial specified value						

Dimensions



Standard lead style

φD	8.0	10.0	12.5	16.0	18.0
p	3.5	5.0		7.5	
φd		0.6		0.8	

D' = [D+0.5]Max.

L' = [L+1.0]Max. at D ≤ 8.0

L' = [L+1.5]Max. at D ≥ 10.0

Ripple current coefficient

Frequency

Cap(μF)	Freq(Hz)					
	50	120	400	1K	10K	50~100K
Cap ≤ 10	0.8	1.0	1.30	1.45	1.65	1.70
10 < Cap ≤ 100	0.8	1.0	1.23	1.36	1.48	1.53
100 < Cap ≤ 1000	0.8	1.0	1.16	1.25	1.35	1.38
1000 < Cap	0.8	1.0	1.11	1.17	1.25	1.28

Temperature

Temperature	≤ 70°C	85°C	105°C
Factor	1.65	1.40	1.0

RUH SERIES

■ Dimensions & Maximum permissible ripple current

 ϕ D x L(mm)

W.V(V) Cap(μ F)	6.3(0J)		10(1A)		16(1C)		25(1E)		35(1V)		50(1H)	
	SIZE	I _r	SIZE	I _r	SIZE	I _r	SIZE	I _r	SIZE	I _r	SIZE	I _r
33											8 x 11.5	150
47									8 x 11.5	170	8 x 11.5	180
100					8 x 11.5	180	8 x 11.5	200	10 x 12.5	240	10 x 16	300
220	8 x 11.5	180	8 x 11.5	200	10 x 12.5	270	10 x 16	350	10 x 20	420	12.5 x 20	460
330	10 x 12.5	250	10 x 12.5	250	10 x 16	340	10 x 20	440	12.5 x 20	520	12.5 x 20	580
470	10 x 12.5	320	10 x 16	340	10 x 20	440	12.5 x 20	520	12.5 x 25	620	16 x 25	710
1000	10 x 20	520	12.5 x 20	560	12.5 x 25	780	16 x 25	800	16 x 25	870	16 x 31.5	1020
2200	12.5 x 25	800	16 x 25	900	16 x 25	1150	16 x 35.5	1230	18 x 35.5	1360		
3300	16 x 25	1030	16 x 31.5	1190	16 x 35.5	1590	18 x 40	1630				
4700	16 x 31.5	1270	16 x 35.5	1420	18 x 35.5	1890						
6800	16 x 35.5	1750	18 x 40	1850								
10000	18 x 40	2040										

W.V(V) Cap(μ F)	63(1J)		80(1K)		100(2A)		160(2C)		200(2D)		250(2E)	
	SIZE	I _r	SIZE	I _r	SIZE	I _r	SIZE	I _r	SIZE	I _r	SIZE	I _r
4.7											10 x 16	50
10					8 x 11.5	100	10 x 20	70	10 x 20	80	12.5 x 20	85
22	8 x 11.5	120			10 x 12.5	170	12.5 x 20	120	12.5 x 20	140	12.5 x 25	140
33	8 x 11.5	150	10 x 16	180	10 x 16	210	12.5 x 25	160	12.5 x 25	170	16 x 25	180
47	10 x 12.5	190	10 x 16	240	10 x 20	270	16 x 25	200	16 x 25	210	16 x 31.5	230
100	10 x 20	340	12.5 x 20	350	12.5 x 20	420	16 x 35.5	300	16 x 35.5	340	18 x 40	360
220	12.5 x 20	500	12.5 x 25	550	16 x 25	620						
330	12.5 x 25	550	16 x 31.5	700	16 x 31.5	780						
470	16 x 25	730	16 x 35.5	880	16 x 35.5	1000						
1000	18 x 35.5	1220										

I_r: Maximum permissible ripple current[mA(rms) at 105°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		