

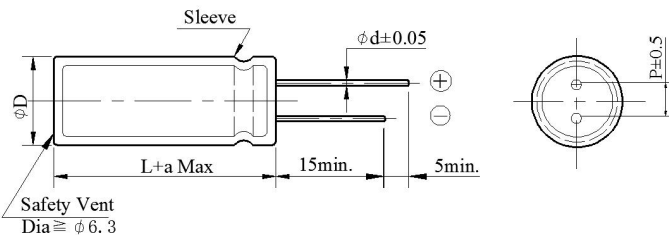
RG Series

- Low impedance and High ripple current.
- Load life 6,000~10,000 hours at 105°C.

◆ SPECIFICATIONS

Item	Performance Characteristics										
Category Temperature Range	-40 ~ +105°C										
Working Voltage Range	6.3 ~100Vdc										
Capacitance Range	6.8~ 5600μF										
Capacitance Tolerance	±20% (at 20℃ and 120Hz)										
Dissipation Factor (tan δ) (at 20℃, 120Hz)	Rated Voltage (V)	6.3	10	16	25	35	50	63	80	100	
	tan δ (Max)	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.08	0.08	
	The above values should be increased by 0.02 for every additional 1000μF										
Leakage Current	I≤0.01CV or 3 μA, whichever is greater. I: Leakage current (μA) C: Rated capacitance (μF) V: Rated voltage (V) Apply rated voltage the rated voltage for 2 minutes.										
Low Temperature Characteristics Impedance Ratio(MAX)	Rated Voltage (V)	6.3	10	16	25	35	50	63	80	100	(at 120Hz)
	Z(-25℃)/Z(+20℃)	4	3	2	2	2	2	2	2	2	
	Z(-40℃)/Z(+20℃)	8	6	4	3	3	3	3	3	3	
Endurance	The following requirements shall be satisfied when the capacitor are restored to 20℃ after the rated voltage applied for 6,000 to 10,000 hours at 105℃.										
	Capacitance change		≒ ±25% of the initial value						Size	Life time (hours)	
	Dissipation factor(tan δ)		≒ 200% of the specified value						5~6.3Φ	6,000	
	Leakage current		≒ specified value						8~10Φ	8,000	
									13Φ	10,000	
Shelf Life	The following requirements shall be satisfied when the capacitor are restored to 20℃ after the rated voltage applied for 1,000 hours at 105℃without voltage applied.										
	Capacitance change		≒ ±25% of the initial value								
	Dissipation factor(tan δ)		≒ 200% of the specified value								
	Leakage current		≒ 200% of the specified value								
Others	Conforms to JIS-C-5101-4 (1998) and IEC 60384-4										

◆ DIMENSIONS(mm)



ΦD	5	6.3	8	10	12.5/13	16	18
ΦD	ΦD±0.5 Max						
Φd	0.5	0.5	0.5/0.6	0.6	0.6	0.8	0.8
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5
a	< 20 L±1.5Max ≥ 20 L±2.0Max						

◆ PART NUMBER SYSTEM(Example :25V 220μF)

E	R	G	0	2	5	M	2	2	1	F	0	9	L	O	3	5	A	A
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Special Request

Lead size

Lead type

Height code (L: 9mm)

Diameter code (F: Φ8)

Capacitance code (220 μF)

Capacitance tolerance code (M: ±20%)

Voltage code (25V)

Series code (RG)

Category code

RG Series

◆ Case size & Permissible rated ripple current: (mA rms) at 105°C / 100KHz

WV(V)	Nominal capacitance (uF)	Case Size ΦD×L (mm)	Impedance (Ω _{max} /100kHz) 25°C	Max.Rated Ripple current @105°C/100kHz (mA rms)	WV(V)	Nominal capacitance (uF)	Case Size ΦD×L (mm)	Impedance (Ω _{max} /100kHz) 25°C	Max.Rated Ripple current @105°C/100kHz (mA rms)
6.3	220	5x11	0.250	450	10	10	5x9	1.000	260
	470	6.3x9	0.160	600		100	5x9	0.720	350
	680	8x12	0.138	980			5x11	0.580	440
	1000	8x16	0.130	1100		220	6.3x11	0.400	580
	1200	10x13	0.120	1050		330	6.3x12	0.190	650
	1500	10x16	0.100	1300		470	6.3x12	0.180	680
	1800	10x16	0.090	1400		680	8x12	0.120	950
	2200	10x20	0.075	1880		1000	8x12	0.100	1000
	2700	10x25	0.068	2050			8x16	0.080	1080
	3300	10x30	0.060	2250		1500	8x20	0.072	1380
	3900	13x20	0.050	2300		2200	10x20	0.060	1780
	4700	13x20	0.040	2500		3300	13x25	0.050	2550
16	100	5x11	0.600	430	25	10	5x11	1.000	260
	220	6.3x11	0.480	550		47	5x11	0.650	320
	330	6.3x11	0.460	600			6.3x11	0.500	380
	470	6.3x12	0.300	650		100	5x11	0.600	400
		8x12	0.170	950			6.3x11	0.300	450
		10x13	0.150	1040		150	6.3x11	0.250	500
	680	8x16	0.130	1050		220	6.3x12	0.250	550
		10x12	0.110	1000			8x12	0.200	800
	820	8x16	0.090	1100		330	8x12	0.180	820
	1000	10x16	0.080	1400		390	8x16	0.150	980
		10x20	0.072	1600		470	8x14	0.100	960
	1500	8x20	0.075	1450			10x13	0.080	1020
		10x20	0.070	1800		560	8x20	0.078	1250
	2200	13x20	0.050	2230		680	10x16	0.075	1400
	3300	12.5x25	0.045	2500		1000	10x14	0.080	1450
		13x25	0.040	2530			13x20	0.075	2000
	3900	12.5x30	0.038	2820		1500	13x25	0.068	2200
						1800	13x25	0.065	2300
						2200	13x25	0.060	2530
						2700	16x26	0.058	2800
						3300	18x26	0.055	3200
						10000	18x40	0.045	5050

RG Series

◆ Case size & Permissible rated ripple current: (mA rms) at 105°C / 100KHz

WV(V)	Nominal capacitance (uF)	Case Size ΦD×L (mm)	Impedance (Ω _{max} /100kHz) 25℃	Max.Rated Ripple current @105°C/100kHz (mA rms)	WV(V)	Nominal capacitance (uF)	Case Size ΦD×L (mm)	Impedance (Ω _{max} /100kHz) 25℃	Max.Rated Ripple current @105°C/100kHz (mA rms)
35	22	5x11	0.900	250	50	1	5x11	3.000	100
	33	5x11	0.800	280		2.2	5x11	2.600	120
	47	5x11	0.700	300		3.3	5x11	2.500	130
		6.3x11	0.400	370		4.7	5x11	2.400	150
	56	5x11	0.500	310		6.8	5x11	2.300	180
	100	6.3x11	0.400	430		10	5x11	2.000	210
		8x12	0.250	750		15	5x11	1.800	270
	150	6.3x12	0.300	500		22	5x11	1.000	275
	220	8x12	0.180	790		33	6.3x11	0.850	350
		8x16	0.160	920		47	6.3x11	0.450	360
		10x13	0.150	930		56	6.3x11	0.350	370
	330	8x12	0.160	900		100	8x12	0.300	730
		10x12	0.145	990		150	8x16	0.260	900
	390	8x20	0.100	1100		220	8x16	0.250	920
	470	10x13	0.120	1050			10x13	0.260	930
		10x16	0.100	1150			10x16	0.240	1100
	560	10x20	0.090	1400		330	10x13	0.250	990
	680	10x20	0.080	1650			10x16	0.160	1180
	820	10x20	0.070	1780		470	10x20	0.100	1300
	1000	10x20	0.068	2000			13x16	0.100	1300
		13x20	0.062	2000		560	10x20	0.095	1380
	1200	13x17	0.065	1850		680	13x17	0.100	1650
		13x20	0.060	2150			13x20	0.090	1980
	1500	13x25	0.055	2500		820	10x35	0.060	2090
	1800	12.5x25	0.052	2500			13x17	0.100	1900
		16x21	0.055	2600			13x20	0.085	2250
	2200	13x30	0.048	2800		1000	13x25	0.070	2300
		16x26	0.050	3000			16x18	0.075	2250
	3300	16x32	0.038	3600		1200	13x25	0.060	2350
	4700	18x40	0.030	4300			16x21	0.068	2400
						1500	13x35	0.055	2600
							16x21	0.056	2500
						1800	13x35	0.053	2800
						2200	18x35	0.040	3600

RG Series

◆ Case size & Permissible rated ripple current: (mA rms) at 105°C / 100KHz

WV(V)	Nominal capacitance (uF)	Case Size ΦD×L (mm)	Impedance (Ωmax/100kHz) 25℃	Max.Rated Ripple current @105℃/100kHz (mA rms)	WV(V)	Nominal capacitance (uF)	Case Size ΦD×L (mm)	Impedance (Ωmax/100kHz) 25℃	Max.Rated Ripple current @105℃/100kHz (mA rms)
63	4.7	5X11	2.500	145	63	330	10X20	0.180	1350
	10	5X11	2.200	200		390	13X20	0.140	1780
	22	6.3X11	1.500	300		470	13X17	0.150	1500
	33	6.3X11	1.000	320		560	13X30	0.120	2200
	47	6.3X11	0.800	350		680	12.5X30	0.110	2400
		8X12	0.550	520			13X20	0.120	2150
	56	8X12	0.450	530		820	12.5X40	0.090	2700
	82	8X12	0.400	580			13X25	0.100	2500
	100	8X12	0.380	680		1000	16X21	0.080	2600
		8X16	0.320	720		1200	18X20	0.072	2600
	120	10X13	0.300	730		1800	16X35	0.050	3300
	180	10X16	0.230	1050		2200	18X32	0.050	3500
220	10X16	0.190	1080	2700	18X40	0.045	3800		
	10X20	0.150	1300	3300	18X40	0.038	4000		
80	10	5x11	2.300	160	100	1	5X11	3.500	80
	22	6.3x11	1.600	260		2.2	5X11	3.000	100
	47	8x12	0.560	500		4.7	5X11	2.800	130
	56	8x12	0.480	500		10	5X11	2.500	170
	68	8x12	0.400	550			6.3X11	2.000	220
	82	8x14	0.300	600		22	6.3X12	1.500	300
	100	10x13	0.240	650		33	8X12	0.580	480
	150	10x14	0.180	780		47	10X13	0.300	600
	220	10x20	0.160	1050		56	10X13	0.280	630
	270	13x20	0.120	1400		82	8X20	0.200	800
	330	13x20	0.100	1450		100	10X20	0.165	1000
	390	13x20	0.090	1500		150	13X17	0.150	1050
	470	16x26	0.068	1850		220	13X20	0.120	1350
	560	16x20	0.070	1800			13X25	0.085	1620
	680	18x26	0.062	2400		270	12.5X30	0.078	1680
	820	16x30	0.058	2800			13X25	0.080	1650
	1000	18x32	0.053	3100		330	13X25	0.078	1800
	1200	18x35	0.050	3300		390	13X30	0.072	2000
	1800	18x40	0.048	3600		470	16X26	0.070	2300
	2200	22x40	0.045	4050			16X32	0.065	2400
							18X21	0.090	2200
						560	16X35	0.062	2600
						680	16X35	0.060	2650
						820	18X40	0.055	3100
						1000	18X35	0.055	3100
							18X40	0.050	3510

◆ RIPPLE CURRENT MULTIPLIERS

Frequency Multipliers

Cap(uF)	Frequency (Hz)			
	120	1K	10K	100K
6.8~180	0.40	0.75	0.90	1.00
220~560	0.50	0.85	0.94	1.00
680~1800	0.60	0.87	0.95	1.00
2200~3900	0.75	0.90	0.95	1.00
4700~	0.85	0.95	0.98	1.00