

RH series

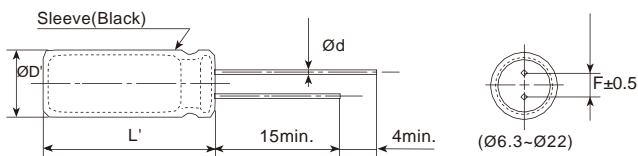
- High frequency, low impedance
- Endurance +105°C 2,000~3,000 hours
- RoHS Compliant



SPECIFICATIONS

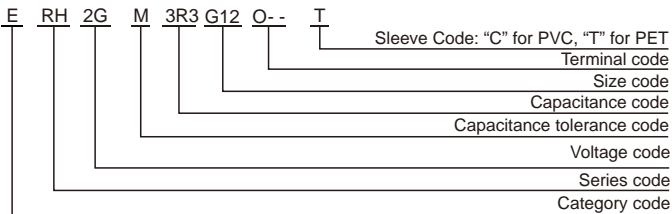
Items	Characteristics							
Category Temperature Range	-40~+105°C(160~400 V _{dc})			-25~+105°C(450 V _{dc})				
Rated Voltage Range	160~450 V _{dc}							
Capacitance Tolerance	±20%(M) (at 20°C, 120Hz)							
Leakage Current	I ≤ 0.02CV or 10μA, whichever is greater. Where, I: Max. leakage current (μA), C: Nominal capacitance (μF), V: Rated voltage (V) (at 20°C after 2 minutes)							
Dissipation Factor (tan δ)	Rated Voltage(V _{dc})	160	200	250	350	400	450	
	tan δ (max.)	0.12	0.12	0.12	0.15	0.15	0.20	
Low Temperature Characteristics (Max. Impedance Ratio)	Rated Voltage(V _{dc})	160	200	250	350	400	450	
	Z(-25°C)/Z(+20°C)	3	5			6		
	Z(-40°C)/Z(+20°C)	4	7			-		
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20°C after DC voltage plus the rated ripple current is applied for a specified period of time at 105°C.							
	Capacitance Change	±20% of the initial value					Case Dia. (mm)	Load life (hours)
	D.F. (tan δ)	200% of the initial specified value					ØD 8	2,000
	Leakage Current	The initial specified value					ØD 10	3,000
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours at 105°C without voltage applied.							
	Capacitance Change	±20% of the initial value						
	D.F. (tan δ)	200% of the initial specified value						
	Leakage Current	200% of the initial specified value						

DIMENSIONS[mm]



ØD	6.3	8	10	12.5	16	18	22
Ød	0.5	0.5	0.6	0.6	0.8	0.8	0.8
F	2.5	3.5	5.0	5.0	7.5	7.5	10.0
ØD'	ØD+0.5max.						
L'	L+2max.						

PART NUMBERING SYSTEM



RATED RIPPLE CURRENT MULTIPLIERS

Frequency correction factor for ripple current

Freq.(Hz)	120	1k	10k	100k
Cap.<10	0.40	0.70	0.92	1.00
10 Cap.<100	0.56	0.83	0.95	1.00
100 Cap. 1000	0.67	0.87	0.96	1.00

The endurance of capacitors is shortened with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C rise. When long life performance is required in actual use, the rms ripple current has to be reduced.

RH series

■ STANDARD RATINGS

WV (Vdc)	Cap (µF)	Size DxL(mm)	tan	Rated ripple current (mA _{RMS} /105°C, 100kHz)	Part Number
160(2C)	2.2	6.3x11	0.12	80	ERH2CM2R2E11OT
	3.3	6.3x11	0.12	103	ERH2CM3R3E11OT
	4.7	8x12	0.12	121	ERH2CM4R7F12OT
	10	10x12	0.12	150	ERH2CM100G12OT
	22	10x16	0.12	228	ERH2CM220G16OT
	33	10x20	0.12	293	ERH2CM330G20OT
	47	12.5x20	0.12	368	ERH2CM470W20OT
	100	12.5x25	0.12	587	ERH2CM101W25OT
220	16x30	0.12	883	ERH2CM221L30OT	
200(2D)	1	5x11	0.12	50	ERH2DM010D11OT
	2.2	6.3x11	0.12	77	ERH2DM2R2E11OT
	3.3	6.3x11	0.12	103	ERH2DM3R3E11OT
	4.7	8x12	0.12	121	ERH2DM4R7F12OT
	10	10x12	0.12	152	ERH2DM100G12OT
	22	10x16	0.12	228	ERH2DM220G16OT
		10x20	0.12	238	ERH2DM220G20OT
	33	10x20	0.12	319	ERH2DM330G20OT
		12.5x20	0.12	365	ERH2DM330W20OT
	47	12.5x20	0.12	405	ERH2DM470W20OT
	56	12.5x25	0.12	476	ERH2DM560W25OT
	68	12.5x25	0.12	540	ERH2DM680W25OT
	82	10x30	0.12	574	ERH2DM820G30OT
	100	16x25	0.12	774	ERH2DM101L25OT
	120	16x25	0.12	801	ERH2DM121L25OT
	150	18x25	0.12	908	ERH2DM151M25OT
180	12.5x35	0.12	948	ERH2DM181W35OT	
220	18x30	0.12	1032	ERH2DM221M30OT	
250(2E)	0.47	6.3x11	0.12	32	ERH2EMR47E11OT
	1	6.3x11	0.12	59	ERH2EM010E11OT
	2.2	6.3x11	0.12	77	ERH2EM2R2E11OT
	3.3	8x12	0.12	106	ERH2EM3R3F12OT
	4.7	8x12	0.12	124	ERH2EM4R7F12OT
	10	10x12	0.12	152	ERH2EM100G12OT
	22	10x20	0.12	244	ERH2EM220G20OT
	33	12.5x20	0.12	371	ERH2EM330W20OT
	47	12.5x25	0.12	423	ERH2EM470W25OT
	56	12.5x25	0.12	472	ERH2EM560W25OT
	82	16x25	0.12	637	ERH2EM820L25OT
	100	16x30	0.12	795	ERH2EM101L30OT
220	18x35	0.12	1085	ERH2EM221M35OT	
330	18x45	0.12	1182	ERH2EM331M45OT	
470	22x46	0.12	1290	ERH2EM471O46OT	
350(2V)	0.47	6.3x11	0.15	32	ERH2VMR47E11OT
	1	6.3x11	0.15	59	ERH2VM010E11OT
	2.2	8x12	0.15	80	ERH2VM2R2F12OT
	3.3	8x12	0.15	109	ERH2VM3R3F12OT
		10x12	0.15	118	ERH2VM3R3G12OT
	4.7	10x16	0.15	153	ERH2VM4R7G16OT
	10	10x16	0.15	179	ERH2VM100G16OT
	22	12.5x25	0.15	316	ERH2VM220W25OT
	33	16x25	0.15	365	ERH2VM330L25OT
	47	16x30	0.15	532	ERH2VM470L30OT

WV (Vdc)	Cap (µF)	Size DxL(mm)	tan	Rated ripple current (mA _{RMS} /105°C, 100kHz)	Part Number
400(2G)	1	8x12	0.15	59	ERH2GM010F12OT
	2.2	8x12	0.15	91	ERH2GM2R2F12OT
	3.3	8x12	0.15	125	ERH2GM3R3F12OT
		10x12	0.15	133	ERH2GM3R3G12OT
	4.7	10x12	0.15	156	ERH2GM4R7G12OT
	10	10x16	0.15	184	ERH2GM100G16OT
		10x20	0.15	211	ERH2GM100G20OT
	22	12.5x20	0.15	332	ERH2GM220W20OT
	27	10x30	0.15	426	ERH2GM270G30OT
	33	10x35	0.15	498	ERH2GM330G35OT
		16x20	0.15	487	ERH2GM330L20OT
	39	10x40	0.15	543	ERH2GM390G40OT
	47	12.5x30	0.15	659	ERH2GM470W30OT
		16x25	0.15	647	ERH2GM470L25OT
	56	10x45	0.15	725	ERH2GM560G45OT
		12.5x35	0.15	720	ERH2GM560W35OT
	68	12.5x40	0.15	902	ERH2GM680W40OT
		16x30	0.15	864	ERH2GM680L30OT
	82	12.5x40	0.15	941	ERH2GM820W40OT
		18x30	0.15	924	ERH2GM820M30OT
100	12.5x50	0.15	956	ERH2GM101W50OT	
	18x30	0.15	935	ERH2GM101M30OT	
120	22x31	0.15	962	ERH2GM121O31OT	
150	12.5x60	0.15	1021	ERH2GM151W60OT	
	22x31	0.15	1010	ERH2GM151O31OT	
450(2W)	1	8x12	0.20	59	ERH2WM010F12OT
	2.2	10x12	0.20	96	ERH2WM2R2G12OT
	3.3	10x16	0.20	136	ERH2WM3R3G16OT
	4.7	10x20	0.20	159	ERH2WM4R7G20OT
	10	12.5x20	0.20	169	ERH2WM100W20OT
	18	10x30	0.20	221	ERH2WM180G30OT
	22	16x20	0.20	338	ERH2WM220L20OT
	27	10x30	0.20	426	ERH2WM270G30OT
	33	10x35	0.20	509	ERH2WM330G35OT
		16x25	0.20	504	ERH2WM330L25OT
	39	10x40	0.20	554	ERH2WM390G40OT
	47	10x45	0.20	703	ERH2WM470G45OT
		12.5x30	0.20	698	ERH2WM470W30OT
	56	18x25	0.20	686	ERH2WM470M25OT
		12.5x35	0.20	781	ERH2WM560W35OT
	68	18x25	0.20	769	ERH2WM560M25OT
		12.5x40	0.20	830	ERH2WM680W40OT
	82	18x30	0.20	808	ERH2WM680M30OT
		12.5x45	0.20	886	ERH2WM820W45OT
	100	18x30	0.20	853	ERH2WM820M30OT
18x35		0.20	924	ERH2WM101M35OT	
120	18x40	0.20	1128	ERH2WM121M40OT	
150	22x40	0.20	1354	ERH2WM151O40OT	
220	22x46	0.20	1537	ERH2WM221O46OT	

Radial Type