

RH series

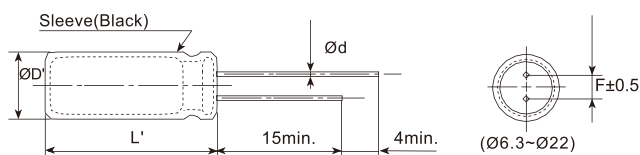
- High frequency, low impedance
- Endurance: +105°C 2,000~3,000 hours
- RoHS Compliant



SPECIFICATIONS

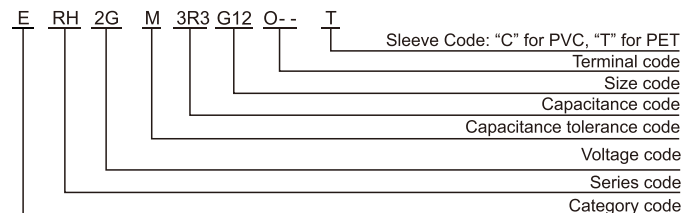
Items	Characteristics										
Category Temperature Range	-40~+105°C(160 ~400 V _{dc})					-25~+105°C(450 V _{dc})					
Rated Voltage Range	160~450 V _{dc}										
Capacitance Tolerance	±20%(M) (at 20°C, 120Hz)										
Leakage Current	I≤0.02CV or 10μA, whichever is greater. Where, I:Max.leakage current (μA), C:Nominal capacitance (μF), V: Rated voltage (V) (at 20°C after 2 minutes)										
Dissipation Factor (tanδ)	Rated Voltage(V _{dc})	160	200	250	350	400	450	(at 20°C, 120Hz)			
	tanδ (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	(at 120Hz)			
	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. (tanδ)		≤200% of the initial specified value								
	Leakage Current		≤The initial specified value					ØD≥8		2,000	
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					ØD≥10		3,000	
	D.F. (tanδ)		≤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 ΦD×L(mm)	tanδ	Rated ripple current (mA _{rms} /105°C, 100kHz)	Part Number
160(2C)	2.2	6.3×11	0.12	80	ERH2CM2R2E11OT
	3.3	6.3×11	0.12	103	ERH2CM3R3E11OT
	4.7	8×12	0.12	121	ERH2CM4R7F12OT
	10	10×12	0.12	150	ERH2CM100G12OT
	22	10×16	0.12	228	ERH2CM220G16OT
	33	10×20	0.12	293	ERH2CM330G20OT
	47	12.5×20	0.12	368	ERH2CM470W20OT
	100	12.5×25	0.12	587	ERH2CM101W25OT
200(2D)	220	16×30	0.12	883	ERH2CM221L30OT
	1	5×11	0.12	50	ERH2DM010D11OT
	2.2	6.3×11	0.12	77	ERH2DM2R2E11OT
	3.3	6.3×11	0.12	103	ERH2DM3R3E11OT
	4.7	8×12	0.12	121	ERH2DM4R7F12OT
	10	10×12	0.12	152	ERH2DM100G12OT
	22	10×16	0.12	228	ERH2DM220G16OT
		10×20	0.12	238	ERH2DM220G20OT
	33	10×20	0.12	319	ERH2DM330G20OT
		12.5×20	0.12	365	ERH2DM330W20OT
	47	12.5×20	0.12	405	ERH2DM470W20OT
	56	12.5×25	0.12	476	ERH2DM560W25OT
	68	12.5×25	0.12	540	ERH2DM680W25OT
	82	10×30	0.12	574	ERH2DM820G30OT
	100	16×25	0.12	774	ERH2DM101L25OT
	120	16×25	0.12	801	ERH2DM121L25OT
250(2E)	150	18×25	0.12	908	ERH2DM151M25OT
	180	12.5×35	0.12	948	ERH2DM181W35OT
	220	18×30	0.12	1032	ERH2DM221M30OT
	0.47	6.3×11	0.12	32	ERH2EMR47E11OT
	1	6.3×11	0.12	59	ERH2EM010E11OT
	2.2	6.3×11	0.12	77	ERH2EM2R2E11OT
	3.3	8×12	0.12	106	ERH2EM3R3F12OT
	4.7	8×12	0.12	124	ERH2EM4R7F12OT
	10	10×12	0.12	152	ERH2EM100G12OT
	22	10×20	0.12	244	ERH2EM220G20OT
	33	12.5×20	0.12	371	ERH2EM330W20OT
	47	12.5×25	0.12	423	ERH2EM470W25OT
	56	12.5×25	0.12	472	ERH2EM560W25OT
	82	16×25	0.12	637	ERH2EM820L25OT
	100	16×30	0.12	795	ERH2EM101L30OT
	220	18×35	0.12	1085	ERH2EM221M35OT
350(2V)	330	18×45	0.12	1182	ERH2EM331M45OT
	470	22×46	0.12	1290	ERH2EM471O46OT
	0.47	6.3×11	0.15	32	ERH2VMR47E11OT
	1	6.3×11	0.15	59	ERH2VM010E11OT
	2.2	8×12	0.15	80	ERH2VM2R2F12OT
	3.3	8×12	0.15	109	ERH2VM3R3F12OT
		10×12	0.15	118	ERH2VM3R3G12OT
	4.7	10×16	0.15	153	ERH2VM4R7G16OT
	10	10×16	0.15	179	ERH2VM100G16OT
	22	12.5×25	0.15	316	ERH2VM220W25OT
	33	16×25	0.15	365	ERH2VM330L25OT
	47	16×30	0.15	532	ERH2VM470L30OT

WV (Vdc)	Cap (μF)	Size ΦD×L(mm)	tanδ	Rated ripple current (mA _{rms} /105°C, 100kHz)	Part Number
400(2G)	1	8×12	0.15	59	ERH2GM010F12OT
	2.2	8×12	0.15	91	ERH2GM2R2F12OT
	3.3	8×12	0.15	125	ERH2GM3R3F12OT
		10×12	0.15	133	ERH2GM3R3G12OT
	4.7	10×12	0.15	156	ERH2GM4R7G12OT
	10	10×16	0.15	184	ERH2GM100G16OT
		10×20	0.15	211	ERH2GM100G20OT
	22	12.5×20	0.15	332	ERH2GM220W20OT
	27	10×30	0.15	426	ERH2GM270G30OT
	33	10×35	0.15	498	ERH2GM330G35OT
		16×20	0.15	487	ERH2GM330L20OT
	39	10×40	0.15	543	ERH2GM390G40OT
	47	12.5×30	0.15	659	ERH2GM470W30OT
		16×25	0.15	647	ERH2GM470L25OT
	56	10×45	0.15	725	ERH2GM560G45OT
		12.5×35	0.15	720	ERH2GM560W35OT
	68	12.5×40	0.15	902	ERH2GM680W40OT
		16×30	0.15	864	ERH2GM680L30OT
	82	12.5×40	0.15	941	ERH2GM820W40OT
		18×30	0.15	924	ERH2GM820M30OT
450(2W)	100	12.5×50	0.15	956	ERH2GM101W50OT
		18×30	0.15	935	ERH2GM101M30OT
	120	22×31	0.15	962	ERH2GM121O31OT
	150	12.5×60	0.15	1021	ERH2GM151W60OT
		22×31	0.15	1010	ERH2GM151O31OT
	1	8×12	0.20	59	ERH2WM010F12OT
	2.2	10×12	0.20	96	ERH2WM2R2G12OT
	3.3	10×16	0.20	136	ERH2WM3R3G16OT
	4.7	10×20	0.20	159	ERH2WM4R7G20OT
	10	12.5×20	0.20	169	ERH2WM100W20OT
	18	10×30	0.20	221	ERH2WM180G30OT
	22	16×20	0.20	338	ERH2WM220L20OT
	27	10×30	0.20	426	ERH2WM270G30OT
	33	10×35	0.20	509	ERH2WM330G35OT
		16×25	0.20	504	ERH2WM330L25OT
	39	10×40	0.20	554	ERH2WM390G40OT
		10×45	0.20	703	ERH2WM470G45OT
	47	12.5×30	0.20	698	ERH2WM470W30OT
		18×25	0.20	686	ERH2WM470M25OT
	56	12.5×35	0.20	781	ERH2WM560W35OT
		18×25	0.20	769	ERH2WM560M25OT
	68	12.5×40	0.20	830	ERH2WM680W40OT
		18×30	0.20	808	ERH2WM680M30OT
	82	12.5×45	0.20	886	ERH2WM820W45OT
		18×30	0.20	853	ERH2WM820M30OT
	100	18×35	0.20	924	ERH2WM101M35OT
	120	18×40	0.20	1128	ERH2WM121M40OT
	150	22×40	0.20	1354	ERH2WM151O40OT
	220	22×46	0.20	1537	ERH2WM221O46OT