

CONDUCTIVE POLYMER HYBRID CAPACITOR

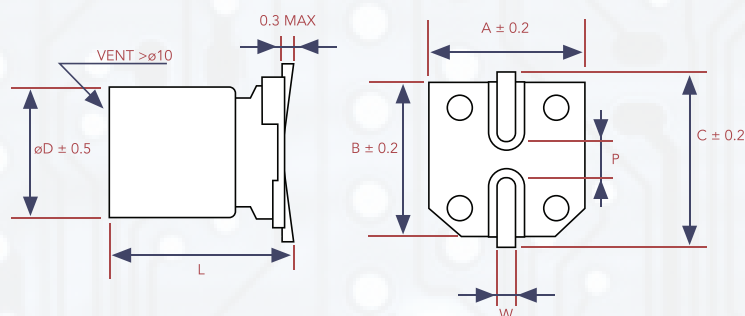
- CHR SERIES -

FEATURES

- $\phi 6.3 \sim \phi 10$, 125°C, 4000 hours assured
- Low ESR and high ripple current
- Designed for reflow soldering
- Can meet IATF16949
- Can meet AEC-Q200 compliant

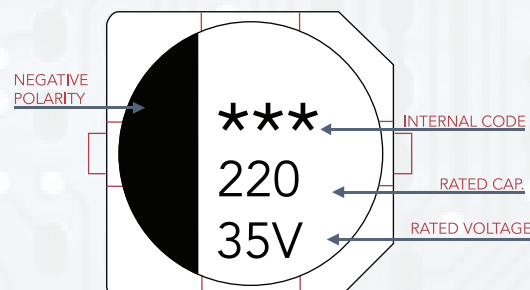


CONSTRUCTION AND DIMENSIONS



ϕD	L	A	B	C	W	P ± 0.2
6.3	6 ± 0.5	6.6	6.6	7.2	0.5~0.8	2.0
	7.7 ± 0.5	6.6	6.6	7.2	0.5~0.8	2.0
8	6.5 ± 0.5	8.3	8.3	9.2	0.7~1.2	3.2
	10 ± 0.5	8.3	8.3	9.2	0.7~1.2	3.2
10	10.5 ± 0.5	10.3	10.3	11.2	0.7~1.2	4.4

MARKING



PART NUMBERING

CHR	1E	470	M	6.3 x 6	R	H
SERIES NAME	RATED VOLTAGE	CAPACITANCE	TOLERANCE	CASE SIZE	PACKAGE TYPE	HIGH TEMP
Series is represented by a three/four digit code	1E - 25V 1V - 35V 1H - 50V 1J - 63V 1K - 80V	470 - 47 μ F 101 - 100 μ F 471 - 470 μ F 102 - 1000 μ F		6.3 x 6.0 6.3 x 7.7 8 x 6.5 8 x 10 10 x 10.5	R - Tape and reel	Optional (4,000 hrs @ 135)

SPECIFICATIONS

ITEM	SPECIFICATION						
Category Temperature Range (°C)	-55°C ~ +125°C (Optional ~ +135°C)						
Capacitance Tolerance	±20% (120Hz / +20°C)						
Leakage Current	I≤0.01 CV or 3μA whichever is greater (after 2 minutes)						
Tan δ	Please see attached characteristics list						
Low Temperature Characteristics	RATED VOLTAGE (V)	25	35	50	63	80	Impedance Ratio 120HZ
	Z(-25°C) / Z(+20°C)	2.0	2.0	2.0	2.0	2.0	
	Z(-55°C) / Z(+20°C)	2.5	2.5	2.5	2.5	2.5	
	After applying rated working voltage and rated ripple current for 4000 hours at +125°C ±2°C, and being stabilized at +20°C, capacitors shall meet the following limits.						
Endurance	Capacitance Change	Within ±30% of the initial value					
	Dissipation Factor (Tan δ)	Less than 200% of the initial value					
	ESR	Less than 200% of the initial value					
	Leakage Current	Within the initial limit					

SPECIFICATIONS

ITEM	SPECIFICATION			
Shelf Life	After storage for 1000 h at +125°C ±2°C with no voltage applied and then being stabilized at +20°C, capacitors shall meet the limits specified in endurance. After reflow soldering and then being stabilized at +20°C, capacitors shall meet the following limits.			
Resistance to Soldering Heat	Capacitance Change	Within ±10% of the initial value		
	D.F. (Tan δ)	Within the initial limit		
	ESR	Within the initial limit		
	Leakage Current	Within the initial limit		
Frequency Correction Factor for Ripple Current	Frequency	120 ≤ f < 1k	1k ≤ f < 10k	10k ≤ f < 100k
	Correction Factor	0.1	0.3	0.6
				100k ≤ f < 500k
				1.0

STANDARD RATINGS

RATED VOLTAGE (V)	CAPACITANCE (20%) (μF)	CASE SIZE		SPECIFICATION		
		ØD (mm)	L (mm)	RATED RIPPLE CURRENT (mA rms)	ESR (mΩ)	TAN δ
25	47	6.3	6	900	50	0.14
	56	6.3	6	900	50	0.14
	68	6.3	6	900	50	0.14
		6.3	7.7	1400	30	0.14
	82	6.3	6	900	50	0.14
	100	6.3	7.7	1400	30	0.14
	150	6.3	7.7	1400	30	0.14
		8	10	1600	27	0.14
	220	8	10	1600	27	0.14
		8	10	2800*	18	0.14
	270	8	10	1600	27	0.14
		8	10	1600	27	0.14
35	330	10	10.5	2000	20	0.14
	470	10	10.5	2000	20	0.14
	33	6.3	6	900	60	0.12
	47	6.3	6	900	60	0.12
	56	6.3	6	900	60	0.12
	68	6.3	7.7	1400	35	0.12
		6.3	7.7	1400	35	0.12
	100	8	10	1600	27	0.12
	150	8	10	1600	27	0.12
	180	8	10	1600	27	0.12
	220	10	10.5	2000	20	0.12
	270	10	10.5	2000	20	0.12
50	330	10	10.5	2000	20	0.12
	22	6.3	6	750	80	0.10
	33	6.3	7.7	1100	40	0.10
	47	8	10	1250	30	0.10
	68	8	10	1250	30	0.10
		8	10	1250	30	0.10
	100	10	10.5	1600	28	0.10
		10	10.5	1600	28	0.10
63	120	10	10.5	1600	28	0.10
	150	10	10.5	1600	28	0.10
	10	6.3	6	700	120	0.08
	22	6.3	7.7	900	80	0.08
	33	8	10	1100	40	0.08
	47	8	10	1100	40	0.08
	47	8	10	2300*	27	0.08
		10	10.5	1400	30	0.08
80	56	10	10.5	1400	30	0.08
	68	10	10.5	1400	30	0.08
	82	10	10.5	1400	30	0.08
	100	10	10.5	1400	30	0.08
	22	8	10	1050	45	0.08
		8	10	1050	45	0.08
	33	10	10.5	1200	36	0.08
		10	10.5	1200	36	0.08
	47	10	10.5	1200	36	0.08
	56	10	10.5	1200	36	0.08

* - Endurance: 4,000 Hrs @135°C

