CONDUCTIVE POLYMER STANDARD

TYPE CPS

FEATURES
LOW ESR @ HIGH FREQUENCY
HIGH RIPPLE CURRENT CAPABILITY
LOAD LIFE 2,000 HOURS
RoHs COMPLIANT

PART NUMBERING

Part Number Example: CPS-6R3/471M8X11F								
CPS	**-**	**6R3**	**/**	**471**	**M**	**8X11**	**F**
Type		Rated DC Voltage		Capacitance Code (µF)*	Tolerance Code	Size	RoHs Compliant

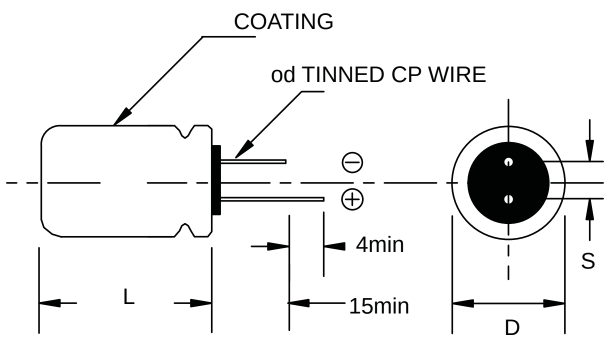
* Capacitance Code: First two digits represent significant figures, third digit represents multiplier (number of zeros).

SPECIFICATIONS

ITEM	CHARACTERISTICS	
OPERATING TEMPERATURE RANGE	-55+105°C	
WORKING VOLTAGE RANGE	2.5 ~ 25vdc	
CAPACITANCE RANGE	39 ~ 3,500µF	
CAPACITY TOLERANCE	±20% (120Hz 20°C)	
LEAKAGE CURRENT (+20°C) MAX	≤0.2 CV + 100µA AFTER 2 MINUTES @ rated voltage	
DF (%) @ 120Hz 20°C	SEE TABLE	
ESR @ 100 ~ 300KHz	SEE TABLE	
ENDURANCE 105°C 2,000Hrs @ RATED VOLTAGE	CAPACITANCE CHANGE	WITHIN ±20% PRE-TEST VALUE
	LEAKAGE CURRENT	LESS THAN SPECIFIED VALUE
	DF	LESS THAN 150% SPECIFIED VALUE
MOISTURE RESISTANCE @ 60°C RH 90 ~ 95% 2,000Hrs	CAPACITANCE CHANGE	WITHIN ±20% PRE-TEST VALUE
	LEAKAGE CURRENT	LESS THAN SPECIFIED VALUE
	DF	LESS THAN 150% SPECIFIED VALUE

FREQUENCY COEFFICIENT FOR RIPPLE CURRENT

FREQUENCY	120Hz	1KHz	10KHz	100KHz
COEFFICIENT	0.05	0.3	0.7	1



D X L	D+.5 max	L MAX	S	d ± 0.5
8X8	8.0	8.5	3.5	0.6
8X11.5	8.0	12	3.5	0.6
10X12.5	10.0	13	5.0	0.6

VOLTS (DC)	CAP. (µF)	LEAKAGE (µA)	DF (%)	ESR (mΩ)	RIPPLE (A.r.m.s.)	SIZE DXL(mm)
2.5	560	280	8	12	5.1	8X8
						8X11.5
	680	340	8	12	5.2	8X8
						8X11.5
	820	410	8	12	5.2	8X8
						8X11.5
	1000	500	8	12	5.5	8X11.5
	1200	600	8	12	5.5	8X11.5
	1,500	750	8	12	5.5	8X11.5
	2000	1000	8	12	5.9	10x12.5
	2,500	1.250	8	12	5.9	10x12.5
	2700	1350	8	12	5.9	10x12.5
	3000	1500	8	12	5.9	10x12.5
	3300	1650	8	12	5.9	10x12.5
	3,500	1750	10	12	5.9	10x12.5
4.0	560	224	8	12	5.1	8x8
					5.2	8X11.5
	680	272	8	12	5.1	8x8
					5.2	8X11.5
	820	328	8	12	5.1	8x8
					5.2	8X11.5
					5.9	10x12.5
	1,200	960	10	12	5.5	8X11.5
					5.9	10x12.5
	1,500	1,200	10	12	5.9	10x12.5
	2000	1600	10	12	5.9	10x12.5
	2,500	2000	10	12	5.9	10x12.5
6.3	180	226.8	7	21	5.1	8X8
					5.1	8X11.5
	220	277	7	21	5.1	8x8
					5.1	8X11.5
	270	340.2	7	21	5.1	8x8
					5.1	8X11.5
	330	416	7	15	5.1	8x8
					5.5	8X11.5
	390	491	8	15	5.1	8x8
					5.5	8X11.5
	470	592	8	12	5.1	8x8
					5.5	8X11.5
	560	705.6	8	12	5.1	8x8
					5.5	8X11.5
	680	428	8	10	5.1	8x8
				12	5.5	8X11.5
					5.9	10x12.5
	820	516.6	10	12	5.1	8x8
					5.5	8X11.5
					5.9	10x12.5
	1,000	630	10	12	5.9	10x12.5
	1200	756	10	12	5.5	8X11.5
					5.9	10x12.5
	1500	945	10	12	5.9	10x12.5
	2,000	1,260	10	12	5.9	10x12.5

RIPPLE CURRENT @ 105°C 100KHZ

VOLTS (DC)	CAP. (µF)	LEAKAGE (µA)	DF (%)	ESR (mΩ)	RIPPLE (A.r.m.s.)	SIZE DXL(mm)
10	180	180	8	15	5.1	8x11.5
	220	220	8	15	5.1	8x11.5
	270	270	8	15	5.5	8x11.5
	330	330	8	12	5.5	8x11.5
	390	390	8	12	5.5	8x11.5
	470	470	8	12	5.5	8x11.5
	560	560	8	12	5.5	8x11.5
	680	680	10	12	5.9	10x12.5
	820	820	10	12	5.9	10x12.5
	1000	1000	10	12	5.9	10x12.5
	1200	1200	10	12	5.9	10x12.5
16	100	160	8	15	4.8	8x11.5
	180	288	8	15	4.5	8x8
					4.8	8x11.5
	220	352	8	15	5.0	8x11.5
	270	432	8	12	5.0	8x8
				15	5.0	8x11.5
				12	5.5	10x12.5
	330	528	8	12	5.0	8x8
						8x11.5
					5.5	10x12.5
	390	624	8	12	5.5	10x12.5
	470	752	10	12	5.0	8x11.5
					5.5	10x12.5
	560	896	10	12	5.5	10x12.5
	680	1000	10	12	5.5	10x12.5
	820	1000	10	12	5.5	10x12.5
20	39	50	8	30	4.1	8x11.5
	47		8	30	4.1	8x11.5
	68		8	25	4.1	8x11.5
	82	75	8	20	4.1	8x11.5
	100	110	8	18	4.9	10x12.5
	180	165	8	18	4.9	10x12.5
	220	235	8	18	4.9	10x12.5
25	39		8	25	4.1	8x11.5
	47		8	20	4.1	8x11.5
	68		8	20	4.1	8x11.5
	82		8	20	4.1	8x11.5
	100		8	15	4.5	8x8
				20	4.9	10x12.5
	180		8	20	4.9	10x12.5
	220		8	20	4.9	10x12.5

RIPPLE CURRENT @ 105°C 100KHZ