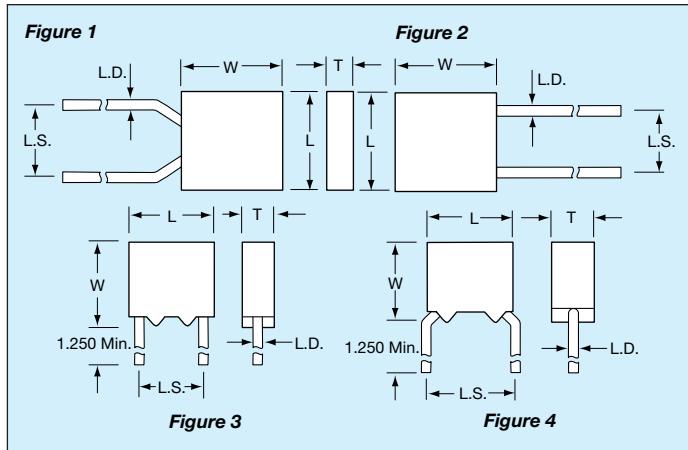


# MIL-PRF-20/Radial Leads



## HOW TO ORDER

**Military Type Designation:**

Established Reliability = CCR05, CCR06, CCR07, CCR08, CCR09

Non-Established Reliability = CC05, CC06, CC07, CC08, CC09

**CCR06**

**Style**

CC = Identifies temperature compensating, ceramic dielectric, fixed capacitors.  
R = Identifies Established Reliability parts  
06 = Numbers identify shape and dimension

**CG**

**Temperature Characteristic**

**Permissible capacitance change from capacitance at +25°C in ppm/°C**

Characteristic	Temp.
CX	1/ 1/-
CK	±250 ppm/°C +246.25, -326.25
CJ	±120 ppm/°C +116.25, -166.25
CH	±60 ppm/°C +55.00, -91.25
CG	±30 ppm/°C +27.50, -53.75

- 1/ Not practically measurable.  
2/ The ppm/°C values for -55°C were calculated by dividing ppm by negative 80°C.

**183**

**Capacitance**

First two digits are the significant figures of capacitance. Third digit indicates the additional number of zeros. For example, order 18,000 pF as 183. (For values below 10pF use "R" in place of decimal point, e.g., 1R4 = 1.4pF.)

**J**

**Capacitance Tolerance**

C = ±0.25pF  
D = ±0.5pF  
F = ±1%  
G = ±2%  
J = ±5%  
K = ±10%

**R**

**Military Failure Rate**

M = 1% per 1000 hours  
P = 0.1% per 1000 hours  
R = 0.01% per 1000 hours  
S = 0.001% per 1000 hours

**(V)**

**Standoff Option**

To order standoff option, place "V" at the end of the part number.  
Example:  
CCR05CG332FSV

**Not RoHS Compliant**

## PACKAGING REQUIREMENTS

**Packaging:** CCR0X: 100 pcs/bag; CC0X: 1000 pcs/bag

## SIZE SPECIFICATIONS

Dimensions: Millimeters (Inches)

Per MIL Spec	Case Size				
	Length (L)	Width (W)	Thickness (T)	Lead Spacing (L.S.)	Lead Diameter (L.D.)
CCR05/CC05 <i>Figures 1, 4</i>	4.83±.25 (.190±.010)	4.83±.25 (.190±.010)	2.29±.25 (.090±.010)	5.08±.38 (.200±.015)	.64±.05 (.025±.002)
CCR06/CC06 <i>Figures 2, 3</i>	7.37±.25 (.290±.010)	7.37±.25 (.290±.010)	2.29±.25 (.090±.010)	5.08±.38 (.200±.015)	.64±.05 (.025±.002)
CCR07/CC07 <i>Figure 2</i>	12.19±.51 (.480±.020)	12.19±.51 (.480±.020)	3.56±.25 (.140±.010)	10.16±.51 (.400±.020)	.64±.05 (.025±.002)
CCR08/CC08 <i>Figure 2</i>	12.19±.51 (.480±.020)	12.19±.51 (.480±.020)	6.1±.25 (.240±.010)	10.16±.51 (.400±.020)	.64±.05 (.025±.002)
CCR09/CC09 <i>Figure 2</i>	4.83±.25 (.190±.010)	4.83±.25 (.190±.010)	2.29±.25 (.090±.010)	2.54±.38 (.100±.015)	.64±.05 (.025±.002)

# MIL-PRF-20/Radial Leads



## MILITARY PART NUMBER IDENTIFICATION

Military Type Designation	Capacitance (pF)	Capacitance Tolerance	WVDC
CC05-CCR05, CC09-CCR09			
CCR05CX1R0_	1.0	B, C	200
CCR05CX1R1_	1.1	B, C	200
CCR05CX1R2_	1.2	B, C	200
CCR05CX1R3_	1.3	B, C	200
CCR05CX1R5_	1.5	B, C	200
CCR05CX1R6_	1.6	B, C	200
CCR05CX1R8_	1.8	B, C	200
CCR05CX2R0_	2.0	B, C	200
CCR05CK2R2_	2.2	B, C	200
CCR05CK2R4_	2.4	B, C	200
CCR05CK2R7_	2.7	B, C, D	200
CCR05CK3R0_	3.0	B, C, D	200
CCR05CK3R3_	3.3	B, C, D	200
CCR05CK3R6_	3.6	B, C, D	200
CCR05CK3R9_	3.9	B, C, D	200
CCR05CJ4R3_	4.3	B, C, D	200
CCR05CJ4R7_	4.7	B, C, D	200
CCR05CJ5R1_	5.1	B, C, D	200
CCR05CJ5R6_	5.6	B, C, D	200
CCR05CJ6R2_	6.2	B, C, D	200
CCR05CJ6R8_	6.8	B, C, D	200
CCR05CJ7R8_	7.5	B, C, D	200
CCR05CH8R2_	8.2	B, C, D	200
CCR05CH9R1_	9.1	B, C, D	200
CCR05CH100_	10	F, G, J	200
CCR05CH110_	11	F, G, J	200
CCR05CH120_	12	F, G, J	200
CCR05CH130_	13	F, G, J	200
CCR05CH150_	15	F, G, J	200
CCR05CH160_	16	F, G, J	200
CCR05CH180_	18	F, G, J	200
CCR05CG200_	20	F, G, J	200
CCR05CG220_	22	F, G, J	200
CCR05CG240_	24	F, G, J	200
CCR05CG270_	27	F, G, J	200
CCR05CG300_	30	F, G, J	200
CCR05CG330_	33	F, G, J	200
CCR05CG360_	36	F, G, J	200
CCR05CG390_	39	F, G, J	200
CCR05CG430_	43	F, G, J	200
CCR05CG470_	47	F, G, J	200
CCR05CG510_	51	F, G, J	200
CCR05CG560_	56	F, G, J	200
CCR05CG620_	62	F, G, J	200
CCR05CG680_	68	F, G, J	200
CCR05CG750_	75	F, G, J	200
CCR05CG820_	82	F, G, J	200
CCR05CG910_	91	F, G, J	200
CCR05CG101_	100	F, G, J	200
CCR05CG111_	110	F, G, J	200
CCR05CG121_	120	F, G, J	200
CCR05CG131_	130	F, G, J	200
CCR05CG151_	150	F, G, J	200
CCR05CG161_	160	F, G, J	200
CCR05CG181_	180	F, G, J	200
CCR05CG201_	200	F, G, J	200
CCR05CG221_	220	F, G, J	200
CCR05CG241_	240	F, G, J	200
CCR05CG271_	270	F, G, J	200
CCR05CG301_	300	F, G, J	200
CCR05CG331_	330	F, G, J	200
CCR05CG361_	360	F, G, J	100
CCR05CG391_	390	F, G, J	100
CCR05CG431_	430	F, G, J	100
CCR05CG471_	470	F, G, J	100
CCR05CG511_	510	F, G, J	100
CCR05CG561_	560	F, G, J	100
CCR05CG621_	620	F, G, J	100
CCR05CG681_	680	F, G, J	100
CCR05CG751_	750	F, G, J	100
CCR05CG821_	820	F, G, J	100
CCR05CG911_	910	F, G, J	100
CCR05CG102_	1,000	F, G, J	100
CCR05CG112_	1,100	F, G, J	100
CCR05CG122_	1,200	F, G, J	100
CCR05CG132_	1,300	F, G, J	100
CCR05CG152_	1,500	F, G, J	100
CCR05CG162_	1,600	F, G, J	100
CCR05CG182_	1,800	F, G, J	100
CCR05CG202_	2,000	F, G, J	50

Add appropriate failure rate level (M, P, R or S)  
Add appropriate cap. tolerance letter

Military Type Designation	Capacitance (pF)	Capacitance Tolerance	WVDC
CC05-CCR05, CC09-CCR09 (cont)			
CCR05CG222_	2,200	F, G, J	50
CCR05CG242_	2,400	F, G, J	50
CCR05CG272_	2,700	F, G, J	50
CCR05CG302_	3,000	F, G, J	50
CCR05CG332_	3,300	F, G, J	50
CC06, CCR06			
CCR06CG361_	360	F, G, J	200
CCR06CG391_	390	F, G, J	200
CCR06CG431_	430	F, G, J	200
CCR06CG471_	470	F, G, J	200
CCR06CG511_	510	F, G, J	200
CCR06CG561_	560	F, G, J	200
CCR06CG621_	620	F, G, J	200
CCR06CG681_	680	F, G, J	200
CCR06CG751_	750	F, G, J	200
CCR06CG821_	820	F, G, J	200
CCR06CG911_	910	F, G, J	200
CCR06CG102_	1,000	F, G, J	200
CCR06CG112_	1,100	F, G, J	200
CCR06CG122_	1,200	F, G, J	200
CCR06CG132_	1,300	F, G, J	200
CCR06CG152_	1,500	F, G, J	200
CCR06CG162_	1,600	F, G, J	200
CCR06CG182_	1,800	F, G, J	100
CCR06CG202_	2,000	F, G, J	100
CCR06CG242_	2,400	F, G, J	100
CCR06CG272_	2,700	F, G, J	100
CCR06CG302_	3,000	F, G, J	100
CCR06CG332_	3,300	F, G, J	100
CCR06CG362_	3,600	F, G, J	100
CCR06CG392_	3,900	F, G, J	100
CCR06CG432_	4,300	F, G, J	100
CCR06CG472_	4,700	F, G, J, K	100
CCR06CG512_	5,100	F, G, J, K	50
CCR06CG562_	5,600	F, G, J, K	50
CCR06CG622_	6,200	F, G, J, K	50
CCR06CG682_	6,800	F, G, J, K	50
CCR06CG752_	7,500	F, G, J, K	50
CCR06CG822_	8,200	F, G, J, K	50
CCR06CG912_	9,100	F, G, J, K	50
CCR06CG103_	10,000	F, G, J, K	50
CCR06CG123_	12,000	F, G, J, K	50
CCR06CG153_	15,000	F, G, J, K	50
CCR06CG183_	18,000	F, G, J, K	50
CCR06CG223_	22,000	F, G, J, K	50
CCR06CG273_	27,000	F, G, J, K	50
CCR06CG333_	33,000	F, G, J, K	50
CCR06CG393_	39,000	F, G, J, K	50
CCR06CG473_	47,000	F, G, J, K	50
CCR06CG563_	56,000	F, G, J, K	50
CCR06CG683_	68,000	F, G, J, K	50
CCR06CG823_	82,000	F, G, J, K	50
CCR06CG104_	100,000	F, G, J, K	50
CC07, CCR07			
CCR07CG222_	2,200	F, G, J, K	200
CCR07CG272_	2,700	F, G, J, K	200
CCR07CG332_	3,300	F, G, J, K	200
CCR07CG392_	3,900	F, G, J, K	200
CCR07CG472_	4,700	F, G, J, K	200
CCR07CG562_	5,600	F, G, J, K	100
CCR07CG682_	6,800	F, G, J, K	100
CCR07CG822_	8,200	F, G, J, K	100
CCR07CG103_	10,000	F, G, J, K	100
CCR07CG123_	12,000	F, G, J, K	100
CCR07CG153_	15,000	F, G, J, K	50
CCR07CG183_	18,000	F, G, J, K	50
CCR07CG223_	22,000	F, G, J, K	50
CCR07CG273_	27,000	F, G, J, K	50
CCR07CG333_	33,000	F, G, J, K	50
CCR07CG393_	39,000	F, G, J, K	50
CCR07CG473_	47,000	F, G, J, K	50
CCR07CG563_	56,000	F, G, J, K	50
CCR07CG683_	68,000	F, G, J, K	50
CCR07CG823_	82,000	F, G, J, K	50
CCR07CG104_	100,000	F, G, J, K	50
CC08, CCR08			
CCR08CG392_	3,900	G, J, K	200
CCR08CG472_	4,700	G, J, K	200
CCR08CG153_	15,000	G, J, K	100
CCR08CG183_	18,000	G, J, K	100
CCR08CG563_	56,000	G, J, K	50
CCR08CG683_	68,000	G, J, K	50

Add appropriate failure rate level (M, P, R or S)  
Add appropriate cap. tolerance letter

Note: For marking information, see page 73.



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