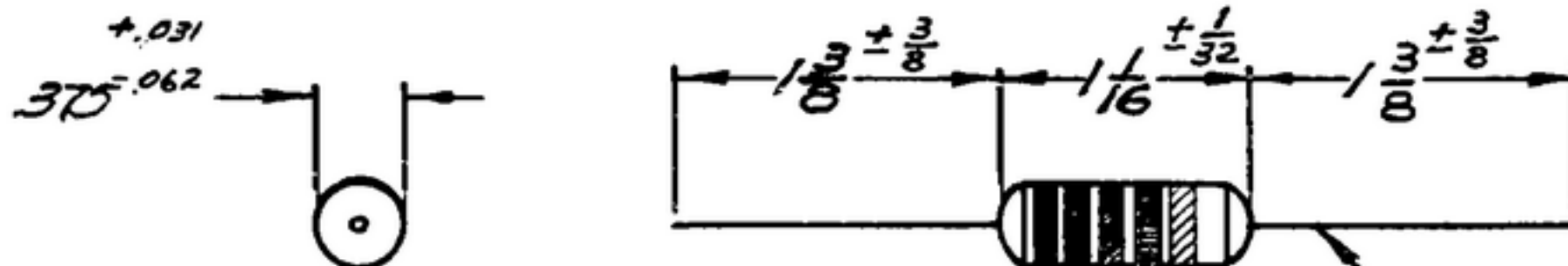


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\* FOR INFORMATION ONLY. CONTRACTOR MAY AT HIS OPTION DEVIATE FROM THESE PROCESS DETAILS.

REVISIONS			
SYM	DESCRIPTION	DATE	APPROVAL
A <sub>2</sub>	A <sub>1</sub> -ADDED NOTES 3 THRU 11 INCL. & SHEET 2. A <sub>2</sub> -PART NO. WAS 65P.	13 NOV. 59	62428-PC-59-A1-51 REV'D. PME



No. 22 BARE SOLID TINNED WIRE MINIMUM

NOTES:

(A<sub>2</sub>)

- PART MAY BE TYPE 65P33303, AS SUPPLIED BY SPRAGUE ELECTRICAL CO., NORTH ADAMS, MASS OR EQUAL, PROVIDING IT MEETS THE FOLLOWING REQUIREMENTS AND DIMENSIONS SHOWN.
- DESCRIPTION: MOLDED PHENOLIC TUBULAR IMPREGUATED PAPER CAPACITOR (PROKAR)  
CAPACITY UF: 0.033, TOL. 20%  
WORKING VOLTAGE: 300 VOLTS D.C. AT 85°C.  
TEST VOLTAGE: 600 VOLTS D.C.  
POWER FACTOR: NOT MORE THAN 1% AT 100 CYCLES PER SECOND AT 25°C.  
OPERATING TEMP.: -55°C TO +85°C.

(A<sub>1</sub>) NOTES: CONTINUE ON SHEET 2.

\* WHEN PART NO. APPEARS AS 559 0422 92 NAVY INSPECTION IS REQUIRED.

COLLINS PART NO.	QTY	REQD	PART NO.	DESCRIPTION	MATL	MATL SPEC
LIST OF MATERIAL						
COLLINS PART NO. 559 0422 002						

				DRAWN	CHECKED	APPROVED	COLLINS RADIO CO. -DESAR-PAPOB-IOWA 14214 PH 51-93		CAPACITOR-FIXED	DEPARTMENT OF THE ARMY SIGNAL CORPS ENGINEERING LABORATORIES  FORT MONMOUTH NEW JERSEY  SM-B-283238 SHEET 1 OF 2
				JENNETT	New		SIGNAL CORPS			
				UNLESS OTHERWISE SPECIFIED: DECIMAL DIMENSIONS INCLUDING HOLE SIZES MAY VARY ±.005 FRACTIONAL DIMENSIONS INCLUDING HOLE SIZES MAY VARY ±1/64 MACHINED ANGLES MAY VARY ±.1° SHEARED ANGLES MAY VARY ±.25° BROKEN ANGLES MAY VARY ±1° ECCENTRICITY BETWEEN ANY DIAMETERS ON THE SAME CENTERLINE SHALL NOT EXCEED .010 TOTAL INDICATOR READING. ALL DIMENSIONS ARE FINISH DIMENSIONS INCLUDING APPLIED FINISH AND ARE GIVEN IN INCHES.			REVIEWED PME			
							APPROVED HLY PME			
558 0452 005	1	SM-E-249101					DATE 17 DEC 56	SCALE 1/1		
558 0362 005	4	SM-E-249014 SCDL-248775								
COLLINS NO.	QTY	NEXT ASSY	USED ON	APPLICATION						

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**NOTE:**

\*FOR INFORMATION ONLY. CONTRACTOR MAY AT HIS OPTION DEVIATE FROM THESE PROCESS DETAILS

REVISIONS		DATE	APPROVAL
SYN	DESCRIPTION		
A2	ADDED NOTES & SHT. 2 (2) SEE SHEET 1	13 JAN 59	4242B-PC -59-A1-51 REV. D PME

**NOTES:**

**3. INSULATION RESISTANCE.**

- A. AT 25°C. THE MINIMUM PRODUCT OF INSULATION RESISTANCE, EXPRESSED IN MEGOHMS, AND CAPACITANCE, EXPRESSED IN MICROFARADS, SHALL BE 5,000 MEGOHM-MICROFARADS. HOWEVER, IN NO CASE NEED THE INSULATION RESISTANCE EXCEED 25,000 MEGOHMS.
- B. AT 125°C. THE MINIMUM PRODUCT OF INSULATION RESISTANCE, EXPRESSED IN MEGOHMS, AND CAPACITANCE, EXPRESSED IN MICROFARADS, SHALL BE 2.5 MEGOHM-MICROFARADS. HOWEVER, IN NO CASE NEED THE INSULATION RESISTANCE EXCEED 50 MEGOHMS.
- C. MEASUREMENTS SHALL BE MADE AFTER A TWO MINUTE CHARGE AT 180 VOLTS DC.

**4. CAPACITANCE AND TOLERANCE. THE CAPACITANCE OF ALL CAPACITORS SHALL BE WITHIN THE SPECIFIED TOLERANCE LIMITS OF THE NOMINAL RATING.**

- A. CAPACITORS SHALL BE MEASURED AT A FREQUENCY OF 1000 CYCLES PER SECOND AT 25°C, OR ELSE REFERRED TO MEASUREMENTS MADE AT THAT FREQUENCY.

**5. POWER FACTOR SHALL BE MEASURED AT A FREQUENCY OF 1000 CYCLES PER SECOND, OR ELSE REFERRED TO MEASUREMENTS MADE AT THAT FREQUENCY. POWER FACTOR SHALL BE 1% MAXIMUM.**

**6. VOLTAGE TEST. CAPACITORS SHALL WITHSTAND A DC POTENTIAL OF TWICE THE RATED VOLTAGE APPLIED BETWEEN THE TERMINALS FOR NOT MORE THAN 5 SECONDS. THE TEST VOLTAGE MUST BE APPLIED AND DISCHARGED THROUGH A RESISTOR OF ONE OHM PER VOLT.**

**7. HUMIDITY TEST.**

- A. CAPACITORS SHALL WITHSTAND THE HUMIDITY TEST AS OUTLINED IN NOTES 7B TO 7E INCLUSIVE.
- B. CONDITION CAPACITORS WITH NO VOLTAGE APPLIED FOR 250 HOURS AT 95% RELATIVE HUMIDITY AND 40°C.

- C. REMOVE CAPACITORS FROM HUMIDITY CHAMBER AND WIPE SURFACE OF THE UNITS DRY OF MOISTURE.
- D. DRY IN CIRCULATING AIR FOR ONE HOUR.
- E. MEASURE INSULATION RESISTANCE AT 25°C IN ACCORDANCE WITH NOTE 3C.
- F. THE MINIMUM PRODUCT OF INSULATION RESISTANCE, EXPRESSED IN MEGOHMS, AND CAPACITANCE, EXPRESSED IN MICROFARADS, SHALL BE 1000 MEGOHM-MICROFARADS AFTER TEST. HOWEVER, IN NO CASE NEED THE INSULATION RESISTANCE EXCEED 10,000 MEGOHMS.
- G. NOT MORE THAN 1 FAILURE SHALL BE PERMITTED IN 12 UNITS TESTED.

- 8. LIFE TEST. CAPACITORS SHALL WITHSTAND A TEST POTENTIAL OF ONE AND ONE-HALF TIMES THE RATED VOLTAGE FOR A PERIOD OF 250 HOURS AT 125°C. NOT MORE THAN 1 FAILURE SHALL BE PERMITTED IN 12 UNITS TESTED.
- 9. LEAD PULL TEST. CAPACITORS SHALL WITHSTAND A STEADY PULL OF 5 POUNDS APPLIED AXIALLY TO THE LEADS FOR ONE MINUTE.
- 10. LEAD BENDING TEST. LEADS SHALL WITHSTAND, WITHOUT BREAKAGE BENDING ABOUT THE POINT OF EGRESS FROM THE CAPACITOR FIRST 90° IN ONE DIRECTION, THEN BACK TO THE ORIGINAL POSITION AND THEN 90° IN THE OPPOSITE DIRECTION.
- 11. MARKING: PERMANENT COLOR CODING PER E.I.A. STD. 101A AS SHOWN, OR PRINTING, INDICATING NOMINAL CAPACITANCE AND WORKING VOLTAGE. MARKING SHALL WITHSTAND ALL ENVIRONMENTAL TESTS.

REQD	PART NO.	DESCRIPTION	MATL	MATL SPEC	NOTES
LIST OF MATERIAL					

				UNLESS OTHERWISE SPECIFIED		COLLINS RADIO CO.		DEPARTMENT OF THE ARMY SIGNAL CORPS ENGINEERING LABORATORIES  FORT MONMOUTH NEW JERSEY  <b>SM-B-283238</b> SH 2 OF 2	
				DIMENSIONS ARE IN INCHES		CEDAR RAPIDS, IOWA			
				TOLERANCES ON		14214-PH-51-93			
				FRACTIONS DECIMALS ANGLES		SIGNAL CORPS			
				± _____ ± _____ ± _____		DRAWN BY JENNETT		REVIEWED PME	
				SM-E-249101		CHECKED BY [Signature]		APPROVED HLY PME	
				SM-E-249101A SC-DL-248775		CHIEF DRAFTS		DATE 17 DEC 56	
NEXT ASSY		USED ON		NEXT ASSY		USED ON		SCALE 1/1	
SWE APPLICATION				APPLICATION				ENG APPROVAL	