

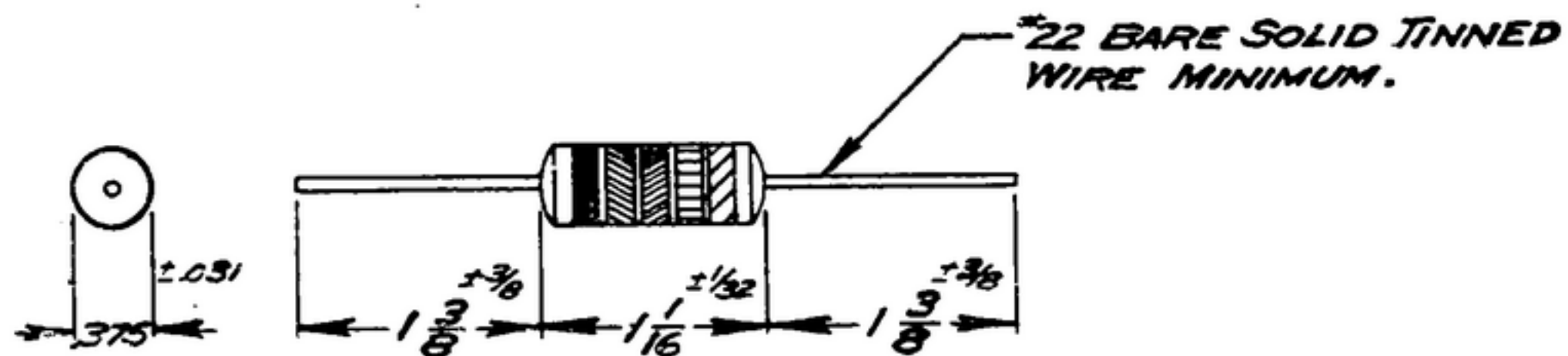
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\*FOR INFORMATION ONLY. CONTRACTOR MAY AT HIS OPTION DEVIATE FROM THESE PROCESS DETAILS.

*\*SWE APPROVAL  
SYM PR10042-11*

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 65P68392.	13 NOV. 59	4242B-PC-59-A1-51 REV'D PME



(A<sub>2</sub>)

- NOTES:
- PART MAY BE 65P10492 AS SUPPLIED BY SPRAGUE ELECTRIC CO. NORTH ADAMS, MASS., OR EQUAL, PROVIDING IT MEETS THE FOLLOWING REQUIREMENTS AND DIMENSIONS SHOWN.
  - DESCRIPTION: MOLDED PHENOLIC TUBULAR IMPREGNATED CAPACITOR.  
CAPACITY: .1 U.F.  
CAPACITY TOL.:  $\pm 10\%$   
WORKING VOLTAGE: 150 VOLTS DC AT 125°C, 200 VOLTS DC AT 85°C.  
TEST VOLTAGE: 400 VOLTS DC.  
POWER FACTOR: NOT MORE THAN 1% FOR 1000 CYCLES AT 25°C.  
OPERATING TEMP.: -55°C TO +125°C

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

*\*When Part No. appears as 559 04219-2 MILITARY SOURCE INSPECTION IS REQUIRED.*

COLLINS PART NO.	ITEM	REQD	PART NO.	DESCRIPTION	MATL	MATL SPEC
LIST OF MATERIAL						
COLLINS PART NO. <i>559 0421 002</i>						

DRAWN <i>R.B.B.</i>				CHECKED <i>Rm</i>		APPROVED		COLLINS RADIO CO. CEDAR RAPIDS, IOWA <i>14214-PH-51-93</i>		DEPARTMENT OF THE ARMY SIGNAL CORPS ENGINEERING LABORATORIES FORT MONMOUTH NEW JERSEY  <b>SM-B-283237</b> SHEET 1 OF 2			
UNLESS OTHERWISE SPECIFIED: DECIMAL DIMENSIONS INCLUDING HOLE SIZES MAY VARY $\pm .005$ FRACTIONAL DIMENSIONS INCLUDING HOLE SIZES MAY VARY $\pm 1/64$ MACHINED ANGLES MAY VARY $\pm 1^\circ$ SHEARED ANGLES MAY VARY $\pm .25^\circ$ BROKEN ANGLES MAY VARY $\pm 1^\circ$ 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.								SIGNAL CORPS				<b>CAPACITOR-FIXED</b>	
558 0364 005 7 SM-E 24901A								REVIEWED <i>PME</i>					
558 0432 005 1 SM-E 249101 SGLD 248775								APPROVED <i>HL Y</i> <i>PME</i>					
COLLINS NO.				QTY		NEXT ASSY		USED ON		DATE <i>9 FEB '56</i> SCALE <i>1/1</i>			
APPLICATION													

NOTICE: WHEN GOVERNMENT SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A SPECIFICALLY RELATED GOVERNMENT PROCUREMENT OPERATION, THE UNITED STATES GOVERNMENT THEREBY TAKES NO RESPONSIBILITY FOR ANY OMISSIONS, MISSTATEMENTS, AND THE FACT THAT THE GOVERNMENT HAS NOT FORMULATED, PUBLISHED, OR IN ANY WAY APPLIED THE DATA, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE CONSIDERED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE, OR SELL ANY PATENTED INVENTION THAT MAY BE IN ANY WAY RELATED THERETO.

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

*SWE APPROVAL		REVISIONS		
SYM	DESCRIPTION	DATE	APPROVAL	
A2	A1 - ADDED 3 THRU 11 INCL. NOTES & SHT. 2 A2 - SEE SHEET 1	13 NOV 59	42428-PC -59-AI-51 REV'D PHF	

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 MEGOHMS-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 MEGOHMS-MICROFARADS. HOWEVER, IN NO CASE NEED THE INSULATION RESISTANCE EXCEED 50 MEG.
  - C. MEASUREMENT 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.

NOTE 7 CONT'D.

- 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 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 DIMENSIONS ARE IN INCHES TOLERANCES ON FRACTIONS    DECIMALS    ANGLES ±        ±        ±		COLLINS RADIO CO. CEDAR RAPIDS, IOWA 14214-PH-51-93 SIGNAL CORPS		CAPACITOR-FIXED		DEPARTMENT OF THE ARMY SIGNAL CORPS ENGINEERING LABORATORIES	
				DRAWN BY <i>R.B.B.</i>		REVIEWED <i>PME</i>				FORT MONMOUTH    NEW JERSEY	
				CHECKED BY <i>K.L.</i>		APPROVED <i>PLY</i> <i>PME</i>					
				CHIEF DRAFTS		DATE <i>9 FEB '56</i>				SM-B-283237 SH 2 OF 2	
				ENG APPROVAL		SCALE <i>1/1</i>					
NEXT ASSY		USED ON		NEXT ASSY		USED ON					
-SWE APPLICATION-				APPLICATION							