

INCH-POUND

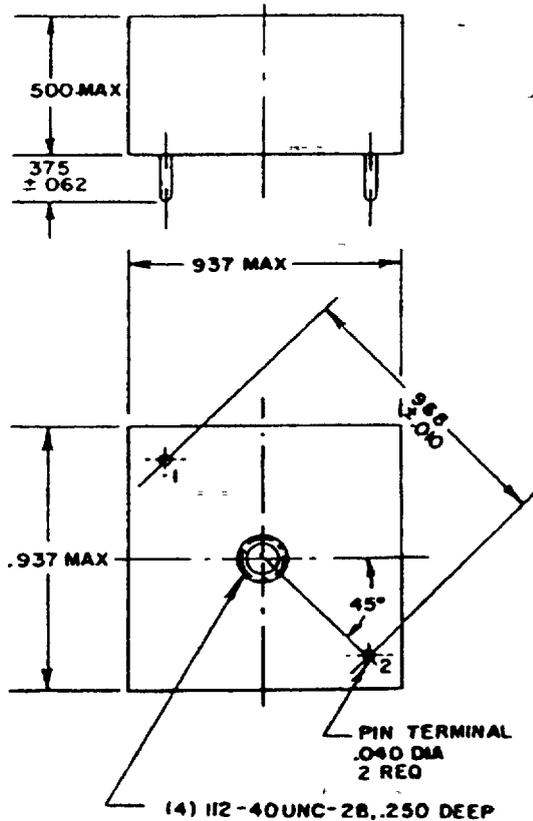
MIL-T-27/142C
31 March 1992
SUPERSEDING
MIL-T-27/142B
17 April 1980

MILITARY SPECIFICATION SHEET

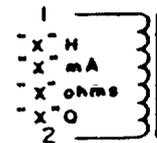
TRANSFORMERS AND INDUCTORS (AUDIO, POWER AND HIGH-POWER PULSE)
INDUCTORS, AUDIO FREQUENCY, TF5R20ZZ

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification sheet and the issue of the following specification listed in that issue of the Department of Defense Index of Specifications and Standards (DODISS) specified in the solicitation MIL-T-27.



Inches	mm
.010	0.25
.040	1.02
.062	1.57
.112	2.84
.250	6.35
.375	9.52
500	12.70
.937	23.80
.968	24.59



WV: 350 V pk
SEE TABLE 1 FOR VALUE OF "X"

CIRCUIT DIAGRAM
AND MARKING

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only
3. Marking shall be on the top of the case

FIGURE 1. Dimensions and configurations.

(C) denotes changes

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REQUIREMENTS: (When numbers in parentheses, i.e., (1-2) are used, they indicate the winding and the extreme terminals of the winding.)

Electrical ratings:

Voltage (1-2): 1 volt rms, 1 kHz

Working voltage: 350 volts peak.

Power: .080 watt.

Design and construction

Dimensions and configurations. See figure 1.

Material: Diallyl phthalate.

Weight: 7 ounce

Duty cycle: Continuous.

Case: Encapsulated

Operating temperature range: -55°C to +105°C.

Terminals: Pin, N-4 type, tin-lead plated in accordance with MIL-STD-1276.

Terminal length: 375 ± .062 inch

Terminal strength: MIL-STD-202, method 211, test condition A, 2 pounds

Dielectric withstanding voltage: Method 301 of MIL-STD-202, test voltage at sea level 1,000 volts rms

Electrical characteristics. See table I

TABLE I. Electrical characteristics.

Dash number	Inductance (H) (1-2) ±1% (1 Vrms, 1 kHz)	Self-resonant frequency (kHz) (min)	DC current <u>2/</u> (max) (mA)	DC resistance (ohms) (max) (1-2)	Quality factor (Q) (min)
01	0.01	170	70	2.5	100 at 10 kHz
02	0.02	120	50	5.1	105 at 10 kHz
03	0.05	76	30	12.0	105 at 10 kHz
04	0.10	54	22	22.0	105 at 10 kHz
05	0.50	24	10	122.0	80 at 5 kHz
06	1.00	17	7	250.0	80 at 5 kHz
07	2.00	12	5	500.0	60 at 5 kHz

1/ Qualification testing and approval to M27/142-07 shall be sufficient to grant qualification approval to M27/142-01 thru M27/142-06

2/ The amount that will reduce the inductance by 7 percent, maximum

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Temperature stability. ± 1.5 percent at -55°C to $+105^{\circ}\text{C}$

Vibration, high frequency MIL-STD-202, method 204, test condition D.

Shock (specified pulse): MIL-STD-202, method 215, test condition I.

Marking location: See figure 1.

Part or Identifying Number (PIN) M27/142-(dash number from table I)

CONCLUDING MATERIAL

Custodians

Army - ER
Navy - EC
Air Force - 85

Review activities.

Army - AS
Navy - OS, SH
Air Force - 17, 99
DLA - ES

User activities:

Army - AR
Navy - AS, MC
Air Force - 19

Preparing activity

Army - ER

Agent

DLA - ES

(Project 5950-0800)