

MIL-PRF-27/289B
22 April 2011
SUPERSEDING
MIL-PRF-27/289A
17 May 1990

PERFORMANCE SPECIFICATION SHEET

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

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

The complete requirements for procuring the transformer described herein shall consist of this document and the latest issue of specification MIL-PRF-27.

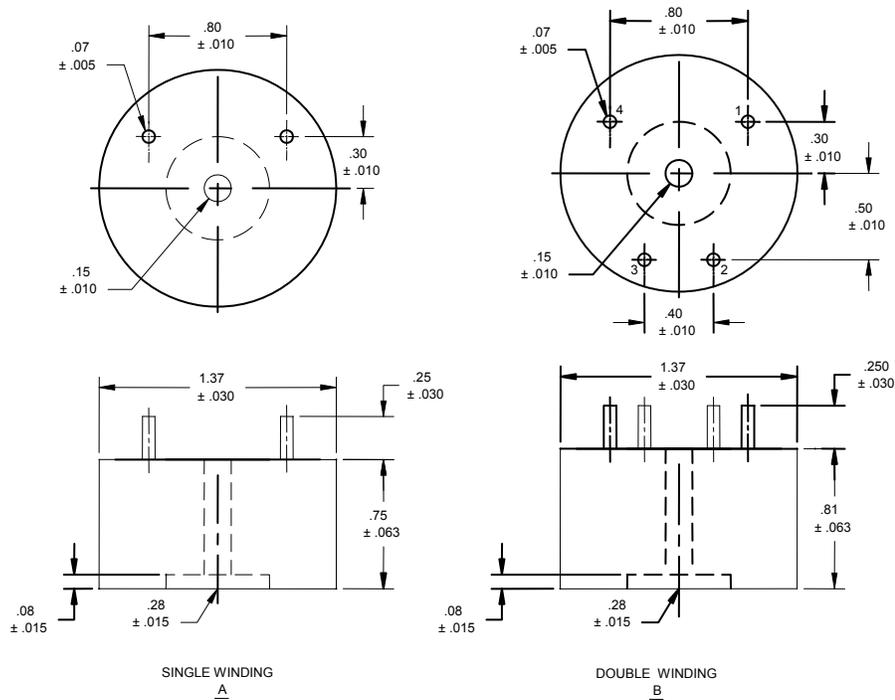
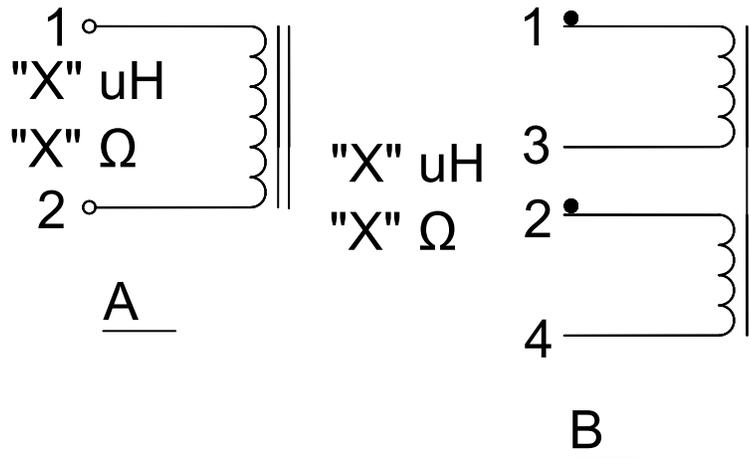


FIGURE 1. Dimensions and configurations.



WV – 357V
 (SEE TABLE I FOR VALUES OF "X")
CIRCUIT DISGRAM AND MARKING

INCHES	MM	INCHES	MM
.005	0.13	.281	7.14
.010	0.25	.300	7.62
.015	0.38	.400	10.16
.030	0.76	.500	12.70
.063	1.60	.750	19.05
.073	1.85	.800	20.32
.082	2.08	.813	20.65
.156	3.96	1.375	31.92
.250	6.35		

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Marking shall be on the side and on top.
4. Electrical values shall be marked as specified in table I, as applicable.
5. Circuit diagram BB, for series connection join terminals 2 and 3 for parallel connection join terminals 1 and 2, 3 and 4.

FIGURE 1. Dimensions and configurations – Continued.

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

Electrical ratings: See table I.

TABLE I. Electrical ratings.

Dash no. <u>1/</u>	Inductance (μh) +15 percent -5 percent <u>2/ 3/</u>	DC current (A) max <u>2/ 4/</u>	DC resistance (ohms) max <u>2/</u>	Working voltage (peak) volts <u>5/</u>	PIN arrangement (see figure 1)	Circuit Diagram (see figure 1)	Voltage
01	10,000	1.1	2.1	357	A	AA	1 volt at 10 kHz
02	6,400	1.35	1.4	357	A	AA	1 volt at 10 kHz
03	2,500	2.2	.55	357	A	AA	1 volt at 10 kHz
04	1,600	2.8	.34	357	A	AA	1 volt at 10 kHz
05	1,000	3.5	.21	357	A	AA	1 volt at 10 kHz
06	$\frac{640}{160}$	$\frac{4.5}{9}$	$\frac{.13}{.033}$	357	B	BB	1 volt at 10 kHz
07	$\frac{400}{100}$	$\frac{7.5}{10.8}$	$\frac{.088}{.022}$	357	B	BB	1 volt at 10 kHz
08	$\frac{240}{60}$	$\frac{6.8}{13.6}$	$\frac{.056}{.014}$	357	B	BB	1 volt at 10 kHz

1/ Qualification test and approval to M27/289-01, shall be sufficient to grant qualification approval to M27/288-02 through -08.

2/ Where electrical values are written one above the other they indicate the values from series or parallel connections respectively $\frac{(series)}{parallel}$.

3/ The inductance is measured with 0 A dc applied at the specified voltage and frequency.

4/ At rated dc current, inductance will exceed 80 of rated inductance.

5/ Between windings, 50 volts peak.

Design and construction:

Dimensions and configuration: See figure 1.

Duty cycle: Continuous.

Case: Epoxy.

Terminals: Printed circuit (tinned brass).

Weight: .3 ounces.

Altitude: 75,000 feet.

Operating temperature range: -55°C to +130°C.

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

Dielectric withstanding voltage:

At sea level: 1,000 Vrms.

At reduce barometric pressure: 500 Vrms.

Vibration (high frequency): MIL-STD-202, method 204.

Temperature rise: +45°C with 1 volt rms, 10 kHz, current as specified in table I at an ambient temperature of +85°C maximum.

Marking location: See figure 1.

Part or Identification Number (PIN): M27/289-(dash number from table I).

Changes from previous issue. The margins of this specification are marked with vertical lines to indicate where changes from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous issue.

Referenced documents.

MIL-PRF-27 MIL-STD-202

Custodians:

Army - CR
Navy - EC
Air Force - 85
DLA - CC

Preparing activity:
DLA - CC

(Project 5950-2009-056)

Review activities:

Army - AR, MI
Navy - AS, MC, OS
Air Force - 19, 99

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <https://assist.daps.dla.mil>.