1. GENERAL: MATERIAL WOUND ON A BOBBIN, SLEEVED WITH AN INSULATING MATERIAL AND
REQUIREMENTS:
A. INTERPRET DRAWING IN ACCORDANCE WITH THE STANDARDS PRESCRIBED BY
MIL-D-7037.
B. SUPPLIER SHALL CONFORM TO THE QUALITY ASSURANCE PROVISIONS CONTAINED
IN HD 1015404, CLASS 2.
C. PREPARATION OF DELIVERY SHALL BE IN ACCORDANCE WITH HD 1002215,
CLASS 1, CODE 1.
(1) MARKING OF SHIPPING CONTAINERS SHALL CONFORM TO THE MARKING
OF UNIT AND INTERMEDIATE PACKAGES AND THE METHODS OF MARKING
AS SPECIFIED IN ND 1002215.

2. ACCEPTANCE AND INSPECTION:
A. MECHANICAL PROPERTIES:
(1) SURFACE QUALITY: CORE INSIDE DIAMETER SHALL HAVE A SURFACE
ROUGHNESS AS DELINEATED AND THE PART SHALL HAVE NO SHARP EDGES
OR BURRS.
(2) SEALING COAT: A SUITABLE UNIFORM, HOMOGENOUS, CONTAMINANT-FREE
COATING SHALL BE APPLIED TO EFFECT A SEAL CAPABLE OF WITHSTAND-
ING THE FOLLOWING TEST (-001 ONLY SHALL BE TESTED).
(a) SUBMERGE THE CORES TO A DEPTH OF TWO INCHES MAXIMUM IN A
HALF AND HALF GLYCERIN-ETHYLENE GLYCOL MIXTURE.
(b) APPLY A VACUUM, SUCH THAT A MERCURY COLUMN AT SEA LEVEL
WILL DROP 25 INCHES, FOR 2 MINUTES MINIMUM.
(c) REJECT ANY UNIT THAT EXHIBITS BUBBLES.
(d) PERFORM A COMPLETE ELECTRICAL TEST ON UNITS AFTER THOROUGHLY
WASHING IN RUNNING WATER AND ALLOWING TO DRY.
B. ELECTRICAL CHARACTERISTICS (MEASURED AT ROOM TEMPERATURE PER TEST
METHOD BELOW, VALUES OF TABLE 1 OR II, AND AS DEFINED IN FIGURES 3
AND 4):
(1) TIME TO PEAK (Tₚ) - MEASURED FROM START OF THE RAMP TO PEAK
OF THE OUTPUT VOLTAGE. START OF THE RAMP CAN BE FOUND BY EX-
TENDING RAMP BACK TO CROSSING OF THE "ZERO CURRENT" AXIS.
(2) SWITCHING TIME (Tₛ) - MEASURED AT 10% OF NOMINAL V, OUTPUT.
(3) PEAK "ONE" OUTPUT (Vₒ) - MEASURED FROM ZERO TO THE PEAK OF THE
OUTPUT WAVEFORM.
(4) PEAK "ZERO" OUTPUT (V₀₋₀ₓₖₒ) - MEASURED INSTANTANEOUSLY BETWEEN
INDUCED JIG VOLTAGE (Vₒ₋₀ₓₖₒ) AND PEAK "ZERO" VOLTAGE.
C. VENDOR SUPPLIED DATA: EACH SHIPMENT OF PARTS SHALL BE ACCOMPANIED
BY THE FOLLOWING DOCUMENTATION.
(1) CERTIFICATE OF COMPLIANCE WITH MATERIAL AND CONSTRUCTION REQUIREMENTS.
(2) CERTIFICATE OF COMPLIANCE WITH HD 1015404, CLASS 2.
(3) CERTIFICATE OF COMPLIANCE WITH SEAL TEST.

3. DESIGN:
A. OPERATING TEMPERATURE RANGE: -75°C TO +85°C.
B. CONSTRUCTION AND MATERIAL: PARTS SHALL BE A PERMALLOY TYPE RIBBON
MATERIAL WOUND ON A BOBBIN, SLEEVED WITH AN INSULATING MATERIAL
AND COATED EXTERNALLY WITH AN INSULATING COMPOUND TO EFFECT A HERMETIC
SEAL.
(1) BOBBIN: NON-MAGNETIC ANNEALED CORROSION-RESISTING STEEL.
(2) CORE: 5/8 MIL NOMINAL THICKNESS NO-PERM RIBBON (OR EQUIVALENT).
(3) SLEEVE (JACKET): .011 THICK PHENOLIC SLEEVE (OR EQUIVALENT).
(4) CORE SHALL HAVE AN AIR SPACE OF 0.008 FROM THE TOP LAYER
OF TAPE TO THE BOBBIN EDGE. COMPLIANCE SHALL BE CERTIFIED.
C. TEST METHOD:
(1) EQUIPMENT:
(ADAR CORE ANALYZER PLUG-IN (TYPE P1-A OR EQUIVALENT).
A TEST UNIT CAPABLE OF SUPPLYING A "SET" PULSE SUFFICIENT
IN AMPLITUDE AND DURATION TO SATURATE THE CORE UNDER TEST, THIS PULSE TO BE FOLLOWED BY AN ESSENTIALLY LINEAR RAMP
WHOSE SLOPE MAY BE MEASURED.
AT LEAST 5 STANDARD CORES TOGETHER WITH CALIBRATION DATA
FOR EACH, SUPPLIED BY THE PROCURING AGENCY, TO BE USED
FOR INSTRUMENT CALIBRATION
(2) CALIBRATION AND MEASUREMENT PROCEDURE:
EQUIPMENT SHALL BE CONNECTED TO A WELL REGULATED SUPPLY
LINE AND ALLOWED TO STABILIZE FOR ONE HOUR PRIOR TO
MEASUREMENT.
CALIBRATE SCOPE SWEEP WITH TIME-MARK GENERATOR.
USING THE CORE ANALYZER PLUG-IN, CALIBRATE THE VERTICAL
SCOPE AMPLIFIER WITH A KNOWN VOLTAGE + 1%. THE INTERNAL
SCOPE CALIBRATOR MAY BE USED IF ITS ACCURACY HAS BEEN
VERIFIED.
ADJUST THE "SET" PULSE SO THAT AMPLITUDE AND DURATION ARE
AT LEAST 0.5 AMPERES AND 10 MICROSECONDS RESPECTIVELY.
ADJUST RAMP TO APPROXIMATELY 200, 400, OR 1000 MILLIAMPERES/
MICROSECOND.
USING ONE OF THE STANDARD CORES, ADJUST THE RAMP SLOPE FOR
EITHER 200, 400, OR 1000 MA/USEC AS APPROPRIATE TO YIELD
THE Tₚ, Tₛ, AND Vₒ VALUES SUPPLIED WITH THE STANDARD.
NOTE: WHEN CALIBRATING OR MEASURING FOR 1000 MA/USEC
RAMP, DISCONNECT "SET" PULSE AND USE THE INTEGRATING CIR-
CUT OF FIGURE 2.
MEASURE ELECTRICAL PARAMETERS FOR CORES UNDER TEST, IN
ACCORDANCE WITH TABLES 1 AND II, FOR EITHER 200, 400, OR
1000 MA/USEC.
REPEAT THE CALIBRATION PROCEDURE AT EVERY HALF HOUR
WHILE TESTING.