

Engineering Note E-519

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Digital Computer Laboratory
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SUBJECT: GENERAL CERAMICS' MATERIALS, MF-1348B and MF-1359B

To: David R. Brown

From: Bronislaw Smulowicz

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Abstract: Pulse tests were performed on F-262 toroids of the General Ceramics' ferrites, MF-1348B and MF-1359B, using pulse-width of 10 microseconds at 2000 cps with single-turn windings.

The response of MF-1348B resembles strongly the behavior of a metallic core. It is characterized by a double peak in the waveform of the disturbed one, with a switching time of 4.5 microseconds. The coercive force for optimum operation is approximately 0.71 oersteds, resulting in a magnitude of the disturbed one of 0.65 volts.

The results of testing the MF-1359B are more satisfactory. The waveform of the disturbed one has a single peak, and the switching time is of the order of only two microseconds. The coercive force for optimum operation is 0.89 oersteds, resulting in a magnitude of the disturbed one of 1.1 volts.

Signed

Bronislaw Smulowicz
Bronislaw Smulowicz

Approved

DRB
David R. Brown

BS/jk