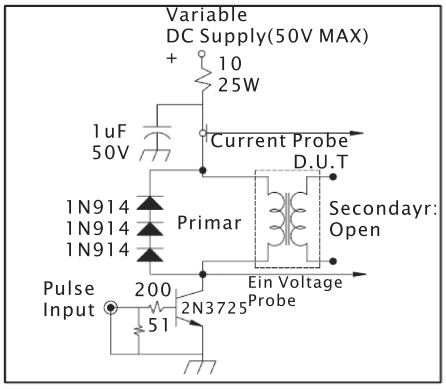
Test conditions: Pulse Amplitude, Pulse Width, and Pulse Repetition Rate as specified. (Temperature: 23℃ ±3℃)
測試條件:脈衝放大器，脈衝頻寬和頻率如規格所述。(溫度23℃ ±3℃)

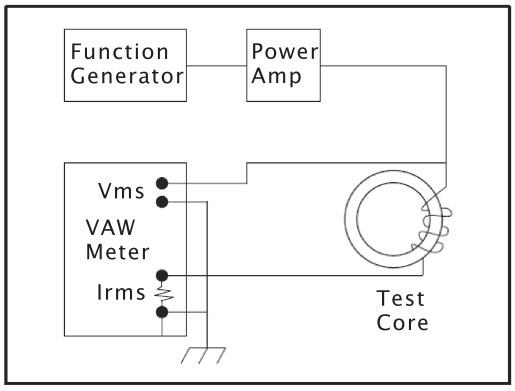
The test toroid to be measured is wound with a sufficient number of turn to produce at least 100uH of inductance. The core is excited by applying square voltage pulses. The test circuit is shown Fig-4.
測試環型鐵芯的繞線至少要有100μH的電感值，鐵芯會受脈衝方波電壓而反應，測試電路如Fig-4。

Pulse inductance , Lp, pulse Inductance Factor, ALP,and the voltage time product, E-T
Lp脈衝電感，ALP脈衝電感係數，E-T產生電壓時間。

Pulse inductance is specified as greater than 90% of sine wave initial inductance.
脈衝電感值被設定大於正弦波初始電感之90%。



Test set up for measuring pulse characteristics.
Fig-4測試脈衝特性之電路



Test set up for measuring power loss.
Fig-5測量功率損失之電路

■Power Loss(功率損失)

Power loss is readily measured using a Volt-Amp-Watt(VAW)meter.
利用電壓-電流-瓦特計來量測功率損失。

Equipment 設備	Signal Generator 信號產生器	Power Amplifier 功率放大器	Clark Hess 256 VAW Meter Clark Hess 256 電壓-電流	Temperature Chambe 瓦特計恆溫室

The equipment is connected as shown Fig 5. Frequency is set and voltage is adjusted to the desired flux density level, given by the relation
恆溫室儀器電路接法如Fig 5.所示，頻率固定，電壓調整為所需的磁通密度，關係式如下：

$$E[V_{rms}] = 4.44 \ddot{A} n B[G] A_e[cm^2] 10^{-8}$$

Power losses are indicated by the VAW meter in watts. Measurements are made as rapidly as possible to avoid temperature rise in the samples.
功率損失是由VAW計量測出來的瓦特數，量測時要儘可能避免測試樣品溫度昇高。

Material power loss density is determined by dividing the measured power loss by the effective volume of the ferrite core.
材質功率損失密度，決定於鐵芯的有效體積。

VAW meter may also be used to measure magnetizing current, Im. This value cane be used to calculate the winding loss (Im 2Rac), a part of the total measured power loss.
VAW計也可量測Im磁化電流，Im也可以用繞線損失(Im 2Rac)計算部份量測之功率損失