



# T Material

## Power Ferrite for Low Losses Across a Wide Temperature Range

T material is a new power material suitable for power transformers and inductors operating from 20 kHz to 750 kHz. Minimum AC losses of power ferrite materials, such as Magnetics' R, are realized within a small temperature range. T material exhibits minimum losses across a wide temperature range (30 to 110° C), making T ideal for a variety of applications that must either meet efficiency targets at start up, may not always reach elevated temperatures, or must be consistent across temperature. T material is suitable for automotive applications, high efficiency (green) SMPS, temperature-sensitive circuits, ballasts and lighting applications, and hand held or mobile devices.

### Characteristics of T material

Property	Symbol	Conditions	Value
Initial permeability	$\mu_i$	25 °C; $\leq 10\text{kHz}$ ; $< 0.5\text{mT}$	3,000 $\pm 20\%$
Recommended usable frequency	f		<750 kHz
Curie Temperature	T <sub>c</sub>		215 min °C
Flux Density	B	25 °C	530 mT
		100 °C	410 mT

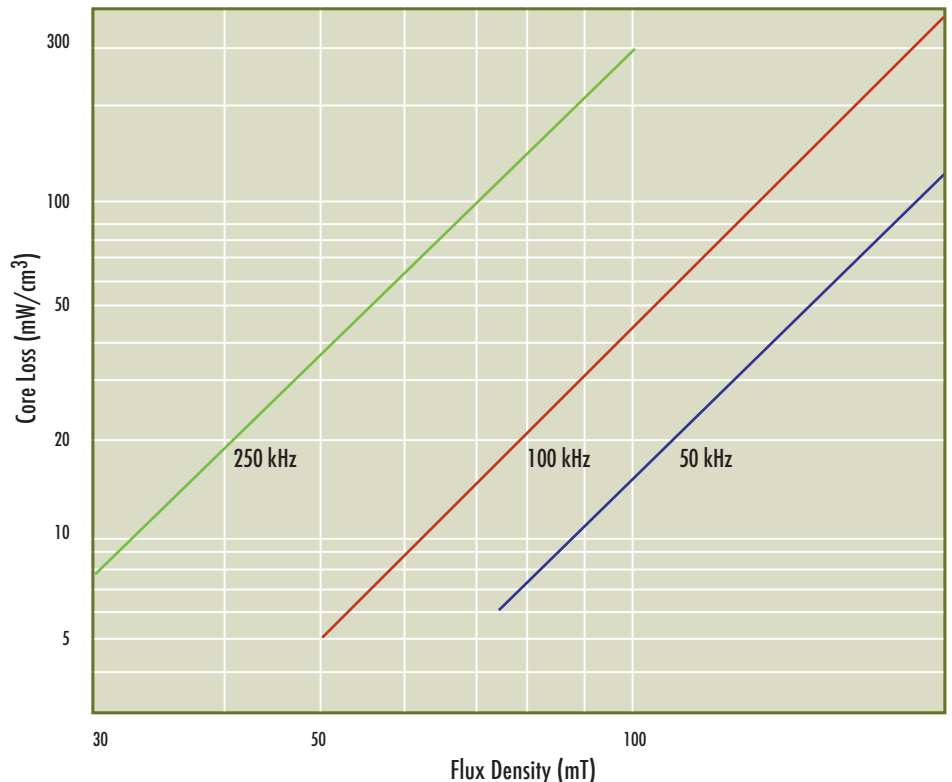
Magnetics introduces T, a new power ferrite material. T material is suitable for power transformers and inductors operating from 20 kHz to 750 kHz across a wide temperature range.

Popular sizes and shapes available include;

PQ20      EP13  
 PQ26      ETD44  
 PQ50      ETD59

Toroids      E cores  
 10 mm      18 mm  
 16 mm      25 mm  
 22 mm      35 mm

T Material Losses at 100°C





MAGNETICS

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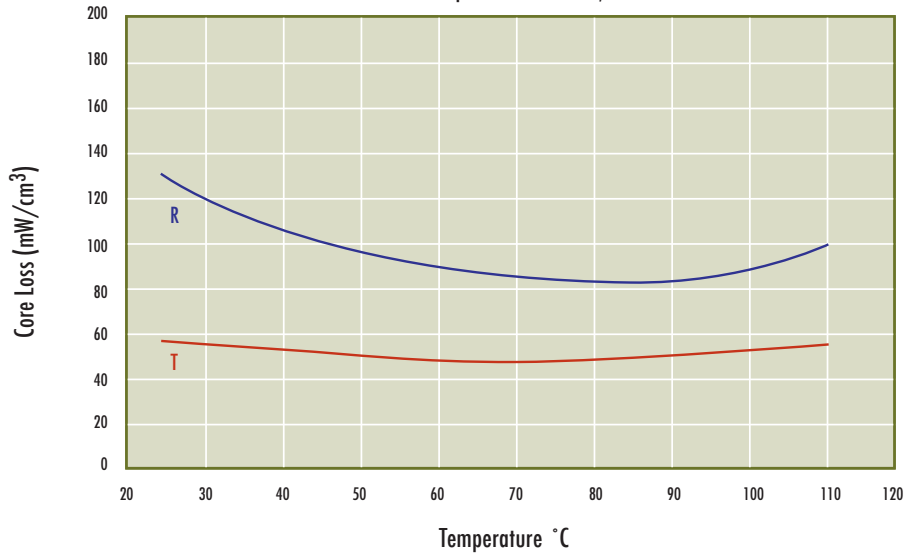
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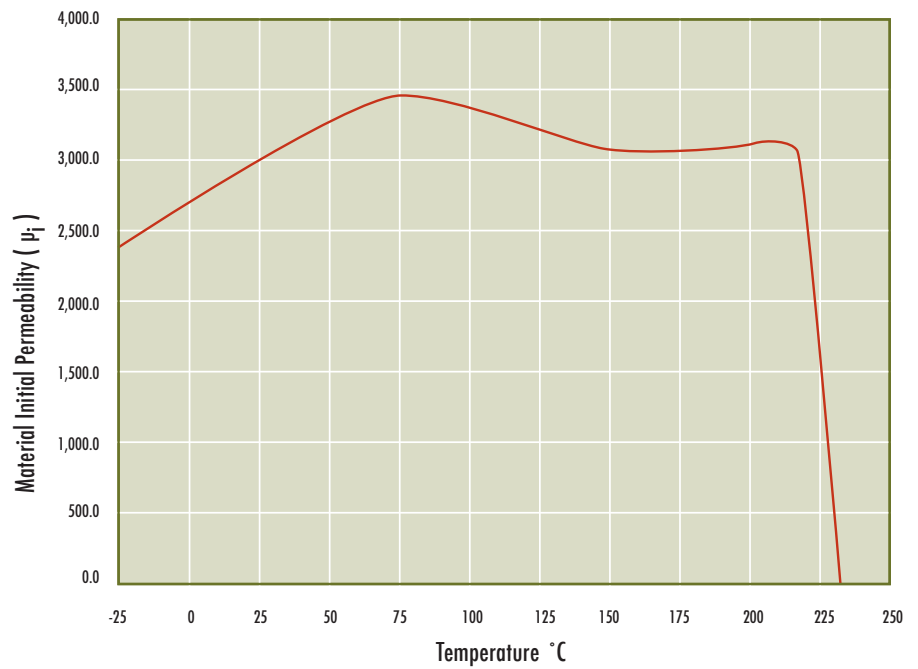
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Losses vs. Temperature 100 kHz, 100 mT



T Material Permeability vs. Temperature



T Material Permeability vs. B

