

How to Select the Right-sized AMOBEADS®.



The right size AMOBEADS core is selected by calculating the necessary voltage times the time in seconds (=flux). From its operating theory, there is a need to increase the voltage used in the calculation by that which develops during the reverse recovery period of the diode. The multiple of the voltage and time (voltage times second) is equal to the operating flux. Therefore, the magnetization $\Delta \phi$ ns necessary to suppress the noise is calculated by the voltage E_c [V] and time for reverse recovery of the diode, that is to the AMOBEADS. $\Delta \phi$ ns [Wb] = $E_c \times t_{rr}$ [V x Sec]

A good result is achieved when the voltage E_c added to AMOBEADS is close to the voltage added to times seconds that was calculated here. However, the actual noise suppression result for AMOBEADS on a real circuit may differ from the calculated value due to the peculiar recovery characteristics of the diode used or the circuit structure. AMOBEADS have high circuit voltage, sometimes an insufficient result is obtained when the reverse recovery time is long and has minimal magnetization. Under this condition, please consider a wire wound type SPIKE KILLER™.

Example of AMOBEADS Selection

Forward Converter

T _{rr}	OUTPUT VOLTAGE				
	3.3V	5V	12V	15V	24V
35nsec	AB3 x 2 x 3W	AB3 x 2 x 4.5W	AB3 x 2 x 6W	AB4 x 2 x 4.5W	AB4 x 2 x 6W
60nsec	AB3 x 2 x 4.5W	AB3 x 2 x 6W	AB4 x 2 x 4.5W	AB4 x 2 x 6W	SPIKE KILLER

Flyback Converter

T _{rr}	OUTPUT VOLTAGE				
	3.3V	5V	12V	15V	24V
35nsec	AB3 x 2 x 3W	AB3 x 2 x 3W	AB3 x 2 x 4.5W	AB4x 2 x 6W	AB4 x 2 x 4.5W
60nsec	AB3 x 2 x 3W	AB3 x 2 x 4.5W	AB3 x 2 x 6W	AB4 x 2 x 4.5W	AB4 x2x6W

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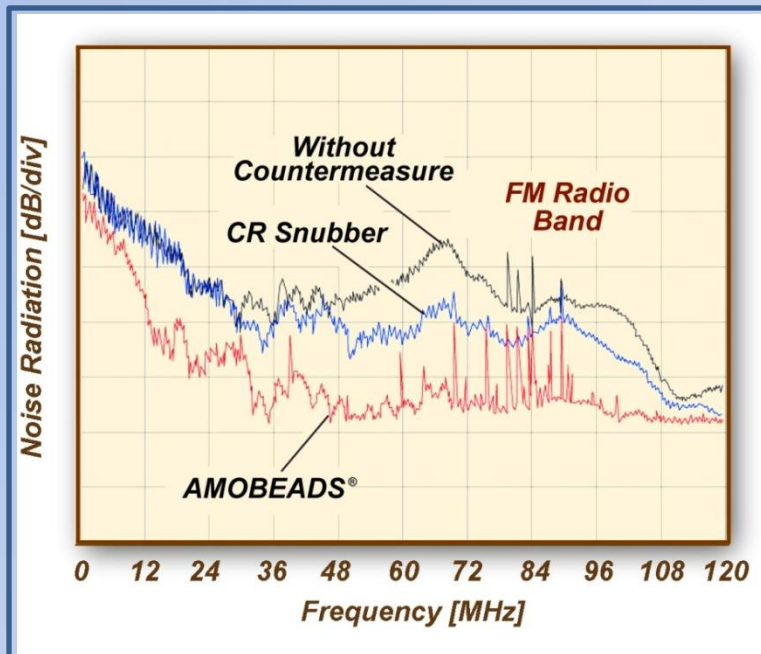
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