

TDK Multilayer Chip IFTs

MIA4532 AND MIF4532 SERIES

TDK Multilayer Chip IFTs for AM and FM radio can be taped for automated mounting purposes. The product is the first multilayer chip IFT in the world in which layers of adjustment-free inductor (ferrite) and capacitor (ceramic dielectric material) are cofired.

FEATURES

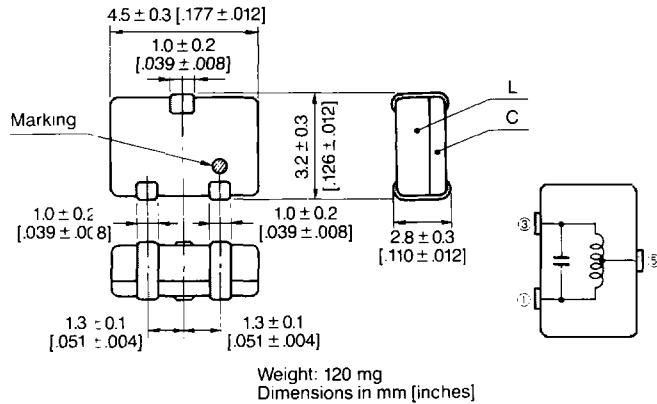
- Suitable for automatic surface mounting. (12 mm [.472 inches] wide tape)
- Small in size.
- Closed magnetic circuit configuration eliminates cross coupling. Suitable for high density applications.
- Monolithic inorganic material construction for high reliability.

PRODUCT IDENTIFICATION

MIA 4532 AR455 □ □ □
 (1) (2) (3) (4) (5)

- (1) Mult layer IFT
 MIA for AM radio
 MIF for FM radio
- (2) Shape (4.5 × 3.2 mm [.177 × .126 inches])
- (3) Center frequency (455 kHz)
- (4) Packaging style
 T: Tape and reel
 B: Bulk
- (5) TDK internal code

MIA4532 SERIES SHAPES AND DIMENSIONS



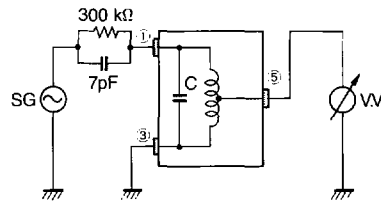
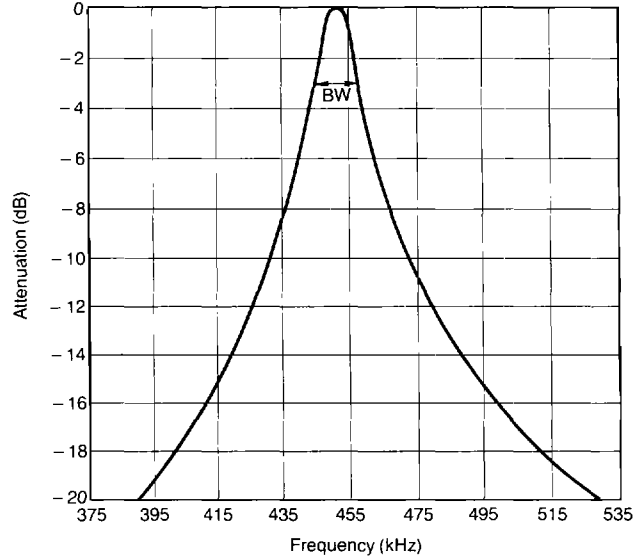
ELECTRICAL CHARACTERISTICS

Part No.	fo (kHz)	Q	Zin (kΩ)	Zout (kΩ)
MIA4532AR455 □	455 ± 3%	40	300/7pF	2

fo: Center frequency Z: Input impedance



Frequency characteristics

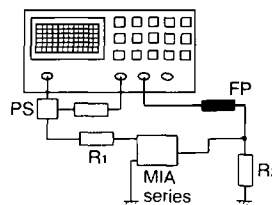


$$Q_o = \frac{f_o}{BW} = \frac{455 \text{ kHz}}{11.3 \text{ kHz}} = 40$$

1. Set the output voltage to 5 mV at the center frequency (fo).
2. Read the voltage (Vi) at various frequencies.

$$\text{Attenuation (dB)} = 20 \log_{10} \left(\frac{V_i}{5 \text{ mV}} \right)$$

Measuring



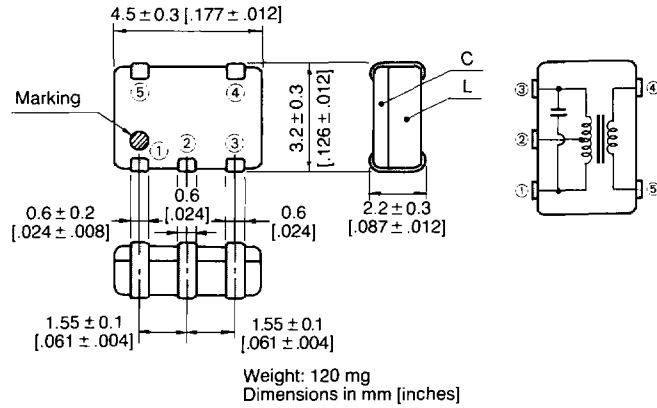
Measuring equipment

HP-3577A:	Network analyzer
FP HP-1121A:	FET probe
PS HP-11667A:	Power splitter

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MIF4532 SERIES

SHAPES AND DIMENSIONS

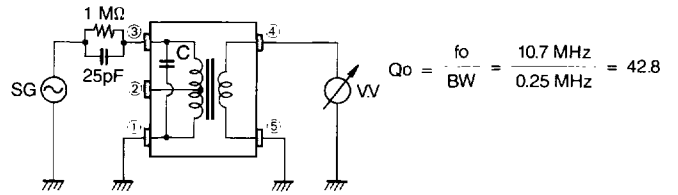
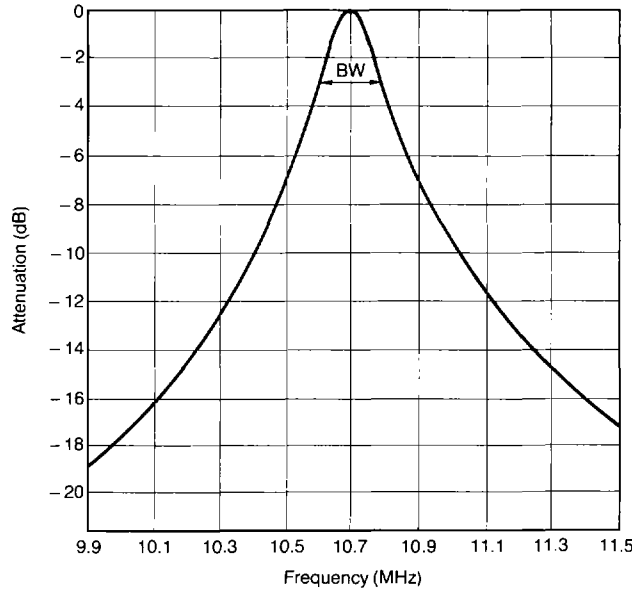


ELECTRICAL CHARACTERISTICS

Part No.	fo (MHz)	Q	Zin (MΩ)	Zout (kΩ)
MIF4532F10R7□	10.7 ± 3%	40	1/25pF	1.2

fo: Center frequency Z: Input impedance

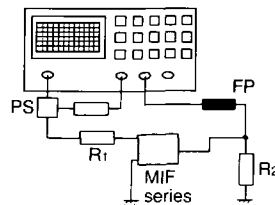
Frequency characteristics



1. Set the output voltage to 5 mV at the center frequency (fo).
2. Read the voltage (V₁) at various frequencies.

$$\text{Attenuation (dB)} = 20 \log_{10} \left(\frac{V_1}{5 \text{ mV}} \right)$$

Measuring



Measuring equipment

HP-3577A:	Network analyzer
FP HP-1121A:	FET probe
PS HP-11667A:	Power splitter

