

IRON POWDER SURFACE MOUNT FIXED INDUCTOR

TYPE FDU1250

Inductance Range: 0.50 - 1.50μH *Frequency Range:* 0.1 - 5MHz

Description

The TOKO FDU1250 Series is a compact, high-current surface mount fixed inductor with a maximum DC current rating of 27.2 Amps at $0.50\mu H$. Manufactured with a proprietary iron powder composition and process, the product is specifically designed for high current, space constrained DC-DC converter applications in portable computing, point-of-load modules, and computer peripherals.

Features

Compact size: 13.6mm x 12.4mm
Low profile: 5.0mm maximum
High DC current: 27.2A at 0.50µH

Magnetically shieldedLow DC resistance

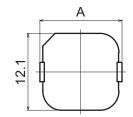
Low audible noiseReflow solderable

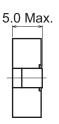
• Packaged on 500 piece reels

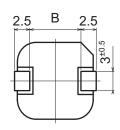
· Lead-free terminations



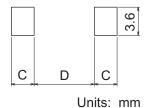
Dimensions and Recommended Footprint







Unit: mm Tolerance: ±0.3mm



TOKO Part No.	Α	В	С	D
FDU1250-R50M=P3	13.3	8.3	3	7.9
FDU1250-R56M=P3	13.3	8.3	3	7.9
FDU1250-R75M=P3	13.3	8.3	3	7.9
FDU1250-1R0M=P3	13.3	8.3	3	7.9
FDU1250-1R5M=P3	13.2±0.4	8.2	3.1	7.7

STANDARD PARTS SELECTION GUIDE

- (1) Inductance is measured by LCR-meter 4284A (Agilent) or equivalent.(2) DC resistance is measured by Digital Multimeter 34420A (Agilent) or equivalent.
- (3) Maximum allowable DC current is that which causes a 20% inductance reduction from the initial value, or coil temperature to rise by 40°C, whichever is smaller. (Reference ambient temperature 20°C).

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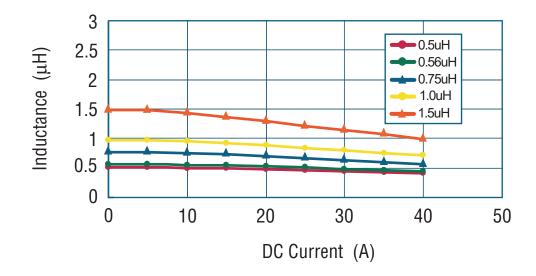
TOKO Part Number	Inductance (μΗ) ⁽¹⁾	Tolerance (%)	Test Freq. (kHz)	DC Resistance ($m\Omega$) max. $^{(2)}$	Inductance Decrease Current [-20%] (A) max. (3)	Temperature Rise Current [+40°C] (A) max. (3)	Absolute Max. Voltage (V)
FDU1250-R50M=P3	0.50	±20	100	1.3	34.0	27.2	30
FDU1250-R56M=P3	0.56	±20	100	1.6	32.0	25.7	30
FDU1250-R75M=P3	0.75	±20	100	1.7	24.5	25.2	30
FDU1250-1R0M=P3	1.00	±20	100	2.2	23.5	21.2	30
FDU1250-1R5M=P3	1.50	±20	100	3.6	17.9	18.2	30

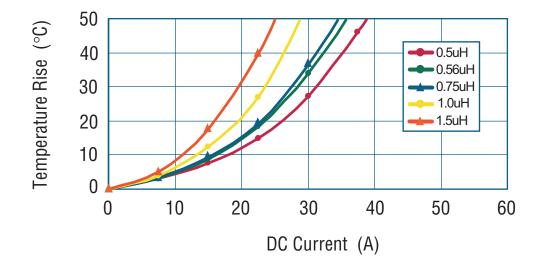
Note: $\ =$ P3 is added to each part number to indicate tape and reel packaging.



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Typical Characteristics







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1250 Feehanville Drive, Mount Prospect, Illinois 60056 Tel: (847) 297-0070 Fax: (847) 699-7864 Web: http://www.tokoam.com