



# 深圳市富尔电子科技有限公司

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## Air Core Inductors -FRE1360

### 规格特性

### SPECIFICATIONS

Part number	Inductance <sup>1</sup> ±10% (µH)	DCR typ <sup>2</sup> (mOhm)	DCR max <sup>2</sup> (mOhm)	SRF typ <sup>3</sup> (MHz)	10% drop	Isat (A) <sup>4</sup> 20% drop	30% drop	Irms (A) <sup>5</sup> 20°C rise	40°C rise
FRE1360-331K	0.33	0.77	0.85	200	36	41	43	13.0	16.9
FRE1360-651K	0.65	0.77	0.85	160	23	27	28	13.0	16.9
FRE1360-102K	1.0	2.36	2.60	75	32	33	33.5	9.5	13.0
FRE1360-182K	1.8	2.36	2.60	50	17	19	20	9.5	13.0
FRE1360-272K	2.7	2.36	2.60	42	12	13	14	9.5	13.0
FRE1360-402K	4.0	5.50	6.05	34	11	12	13	7.1	9.4
FRE1360-472K	4.7	5.50	6.05	32	9.5	11	12	7.1	9.4
FRE1360-602K	6.0	5.50	6.05	28	8.0	9.0	9.5	7.1	9.4
FRE1360-802K	8.0	9.83	10.81	26	7.5	8.5	9.0	5.5	7.6
FRE1360-103K	10	9.83	10.81	24	6.2	7.0	7.5	4.4	7.2

The FRE1360 series provides exceptionally high current carrying capability (up to 43 Amps) and very low DC resistance, all in a low profile, small footprint package.

The part's magnetic shielding and 13 × 13 mm base allow high density mounting while the flat wire winding keeps the overall height to just 6 mm.

In addition to the standard values show, custom values are available to meet specific applications.

1. Inductance measured at 100 kHz, 0.1 Vrms, 0 Adc on an Agilent/HP 4284A or equivalent.
2. DCR measured on a micro-ohmmeter.
3. SRF measured using an Agilent/HP 4395A network analyzer and an Agilent/HP 16193A test fixture.
4. DC current at which the inductance drops 10% (typ) from its value without current.
5. Current that causes a 40°C temperature rise from 25°C ambient.
6. Electrical specifications at 25°C.

**Designer's Kit C365** contains 3 each of all values

**Core material** Ferrite

**Terminations** RoHS matte tin over nickel over phos bronze. Other terminations available at additional cost.

**Weight** 2.6 – 2.8 g

**Ambient temperature** -40°C to +85°C with Irms current, +85°C to +125°C with derated current

**Storage temperature** Component: -40°C to +125°C.  
Packaging: -40°C to +80°C

**Resistance to soldering heat** Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

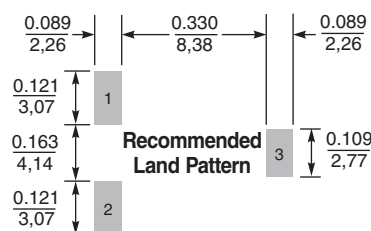
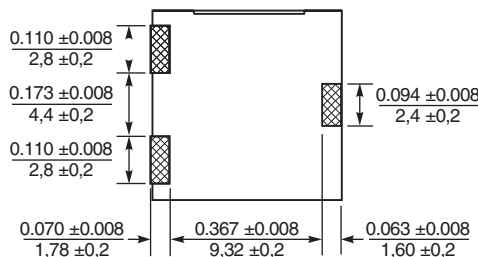
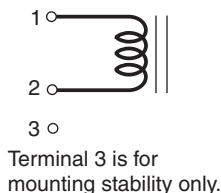
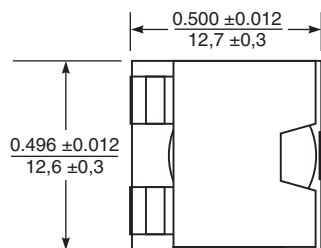
**Moisture Sensitivity Level (MSL)** 1 (unlimited floor life at <30°C / 85% relative humidity)

**Failures in Time (FIT) / Mean Time Between Failures (MTBF)**  
38 per billion hours / 26,315,789 hours, calculated per Telcordia SR-332

### 外观尺寸

### SHAPE AND DIMENSIONS

Dimensions are in  $\frac{\text{inches}}{\text{mm}}$





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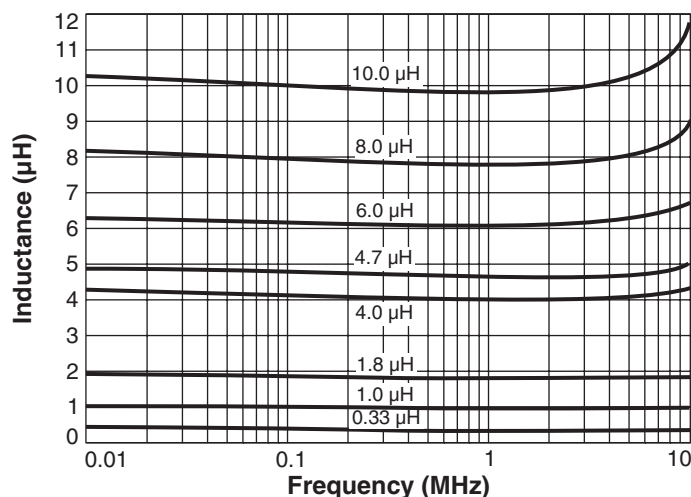


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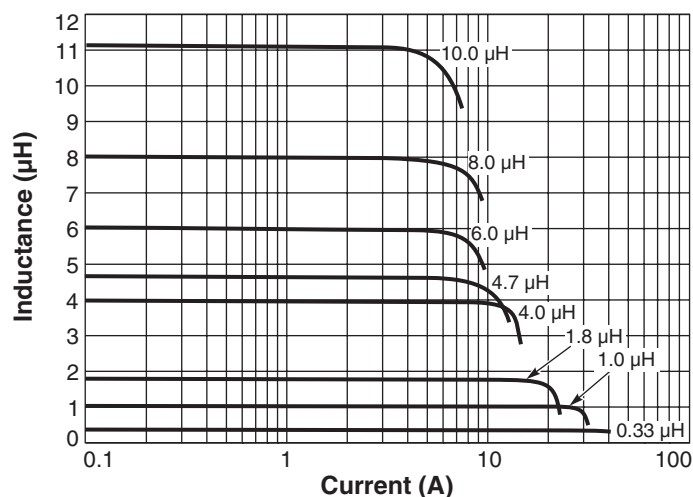
电气特性

TYPICAL ELECTRICAL CHARACTERISTICS

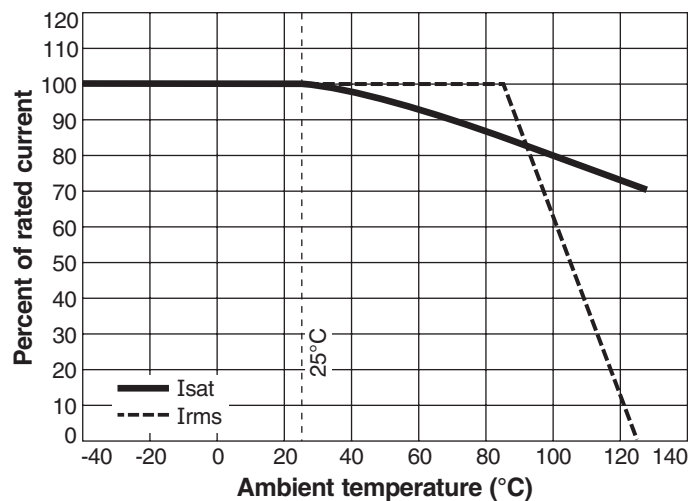
Typical L vs Frequency



Typical L vs Current



Current Derating



Temperature Rise vs Current

