

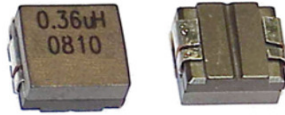


ITCR4040EEERR36MR5

Vishay Dale

PRELIMINARY
CONFIDENTIAL*

Low Profile, High Current Inductor

RoHS
COMPLIANT

FEATURES FOR CURRENT SENSE APPLICATIONS

- Extremely tight tolerance on DCR $\pm 1\%$
- DCR can be customer specified
 - DCR as low as 0.2mOhms possible
- 4 Terminal Kelvin Termination for accurate current sensing
- Very Low TCR (Temperature Coefficient of Resistance - 100ppm)

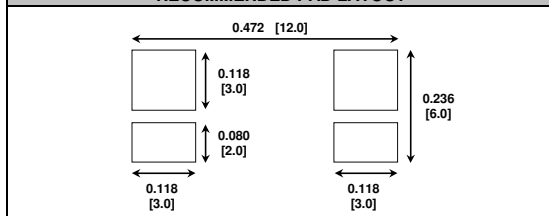
STANDARD ELECTRICAL SPECIFICATIONS

Lo INDUCTANCE $\mu\text{H} \pm 20\%$ @100KHz, 0.25V, 0A	DCR mOhms $\pm 1\%$ at 25 °C 100ppm TCR	HEAT RATING CURRENT DC AMPS ₃ TYPICAL	SATURATION CURRENT DC AMPS ₄ TYPICAL
0.36	0.5 mΩ	42	23
	0.8 mΩ	34	23
	1.0 mΩ	30	23

Notes:

1. All test data is referenced to 25°C ambient.
2. Operating Temperature Range - 55°C to + 125°C
3. DC current (A) that will cause an approximate ΔT of 40°C.
4. DC current (A) that will cause Lo to drop approximately 20%
5. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

RECOMMENDED PAD LAYOUT



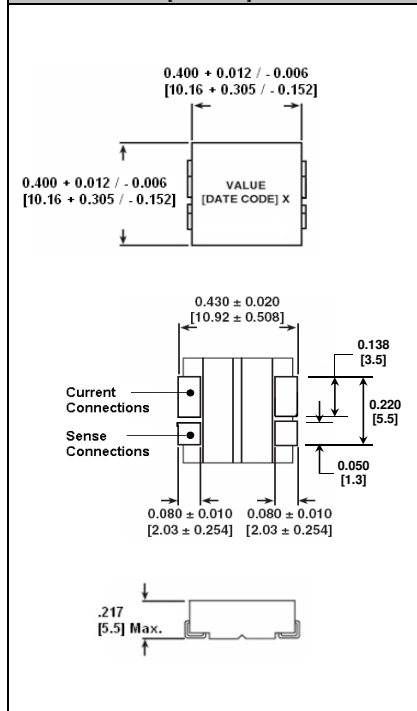
FEATURES

- Shielded construction.
- Frequency range up to 1MHz.
- Lowest DCR/ μH , in this package size.
- Ultra low buzz noise.
- 100% lead (Pb) free and RoHS compliant.

APPLICATIONS

- PDA/Notebook/Desktop/Server applications.
- High current POL converters.
- Low profile, high current power supplies.
- Battery powered devices.
- DC/DC converters in distributed power systems.
- DC/DC converter for Field Programmable Gate Array (FPGA).

DIMENSIONS in inches [millimeters]



DESCRIPTION

ITCR-4040EE-R5 MODEL	0.36 μH INDUCTANCE VALUE	$\pm 20\%$ INDUCTANCE TOLERANCE	ER Package Code	e3 JEDEC Lead (Pb)-free Standard
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* R5 series designates the 0.5 mOhm DCR option

GLOBAL PART NUMBER

I	T	C	R	4	0	4	0	E	E	E	R	R	3	6	M	R	5
MODEL				SIZE				PACKAGE CODE		INDUCTANCE VALUE		INDUCTANCE TOLERANCE		SERIES			

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PERFORMANCE GRAPHS

ITCR4040EEERR36MR5

