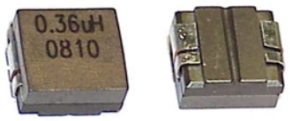
PRELIMINARY
CONFIDENTIAL*

Vishay Dale

Low Profile, High Current Inductor

Pb-free
RoHS COMPLIANT



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.

FEATURES FOR CURRENT SENSE APPLICATIONS

- Extremely tight tolerance on DCR ±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

APPLICATIONS

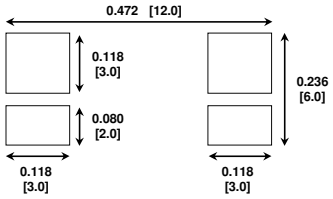
- PDA/Notebook/Desktop/Server applications.
- High current POL converters.
- Low profile, high current power supplies.
- Battery powered devices.
- DC/DC converters in distributed power systems.
- DC/DC converter for Field Programmable Gate Array (FPGA).

STANDARD ELECTRICAL SPECIFICATIONS

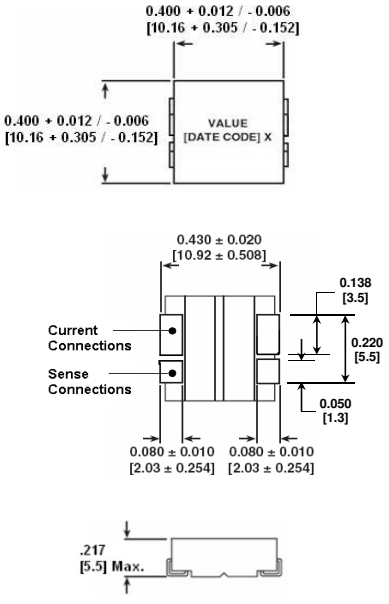
L_O INDUCTANCE µH ±20% @100KHz, 0.25V, 0A	DCR mOhms ±1% at 25°C 100ppm TCR	HEAT RATING CURRENT DC AMPS[3] TYPICAL	SATURATION CURRENT DC AMPS[4] TYPICAL
0.36	0.5 mΩ	42	23
	0.8 mΩ	34	23
	1.0 mΩ	30	23

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



DIMENSIONS in inches [millimeters]



DESCRIPTION

ITCR-4040EE-R5 MODEL	**0.36 µH** INDUCTANCE VALUE	**± 20%** INDUCTANCE TOLERANCE	**ER** Package Code	**e3** JEDEC Lead (Pb)-free Standard

*** 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	

PERFORMANCE GRAPHS