

### Description

- Miniature surface mount design with rugged case to eliminate core breakage
- Inductance range from 0.470uH to 1000uH
- Current range up to 18.6 Amps peak
- Meets UL94V-0 flammability standard
- Ferrite core material



### Applications

- PDA, computer, and flash memory programs

### Environmental Data

- Storage temperature range: -40°C to +125°C
- Operating ambient temperature range: -40°C to +85°C (range is application specific)
- Solder reflow temperature: +260°C max. for 10 seconds max.

### Packaging

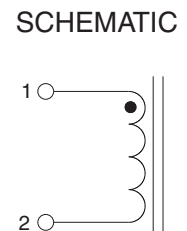
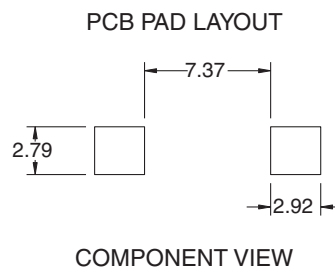
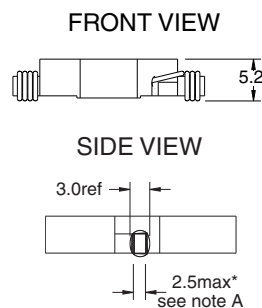
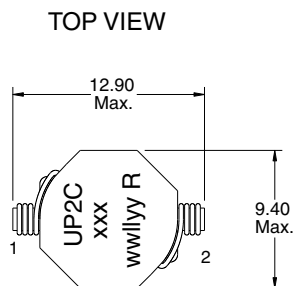
- Supplied in tape and reel packaging, 900 per reel

Part Number	Inductance $\mu\text{H}$ (rated)	OCL <sup>(1)</sup> $\mu\text{H}\pm 20\%$	I <sub>RMS</sub> <sup>(2)</sup> Amperes	I <sub>SAT</sub> <sup>(3)</sup> Amperes	DCR <sup>(4)</sup> m $\Omega$ typ.	Volts <sup>(5)</sup> $\mu\text{S}$ (typ)
UP2C-R47-R	0.470	0.48	12.2	18.6	2.5	4.15
UP2C-1R0-R	1.0	1.03	9.80	11.8	3.9	7.0
UP2C-1R5-R	1.5	1.45	8.10	10.0	5.6	8.3
UP2C-2R2-R	2.2	2.00	7.50	8.67	6.6	9.6
UP2C-3R3-R	3.3	3.30	5.90	6.84	10.5	12.1
UP2C-4R7-R	4.7	4.41	5.62	6.20	11.7	13.4
UP2C-6R8-R	6.8	7.16	4.42	4.82	18.0	17.3
UP2C-100-R	10.0	10.56	3.61	3.94	28.3	21.1
UP2C-150-R	15.0	15.97	3.17	3.17	36.9	26.2
UP2C-220-R	22.0	22.33	2.61	2.65	54.0	31.3
UP2C-330-R	33.0	32.11	2.16	2.20	79.7	37.7
UP2C-470-R	47.0	47.90	1.77	1.83	118.5	45.4
UP2C-680-R	68.0	65.03	1.57	1.53	151.7	54.3
UP2C-101-R	100.0	97.85	1.26	1.24	233.1	67.1
UP2C-151-R	150.0	141.9	1.04	1.02	351.4	81.2
UP2C-221-R	220.0	207.8	0.82	0.85	545.0	97.8
UP2C-331-R	330.0	318.2	0.67	0.70	824.3	120
UP2C-471-R	470.0	470.8	0.56	0.58	1191.4	144
UP2C-681-R	680.0	689.7	0.46	0.48	1774.2	173
UP2C-102-R	1000.0	1080.0	0.38	0.40	2657.1	209

**Notes:** (1) Open Circuit Inductance Test Parameters: 100KHz, .250Vrms, 0.0Adc.  
 (2) RMS current for an approximate  $\Delta T$  of 40°C without core loss, at an ambient temperature of 85°C.  
 (3) Peak current for approximately 30% rolloff @ 20°C.

(4) DCR limits 20°C.  
 (5) Applied volt-time product (V-uS) across the inductor. This value represents the applied v-us at 300KHz necessary to generate a core loss equal to 10% of the total losses for a 40° temperature rise.

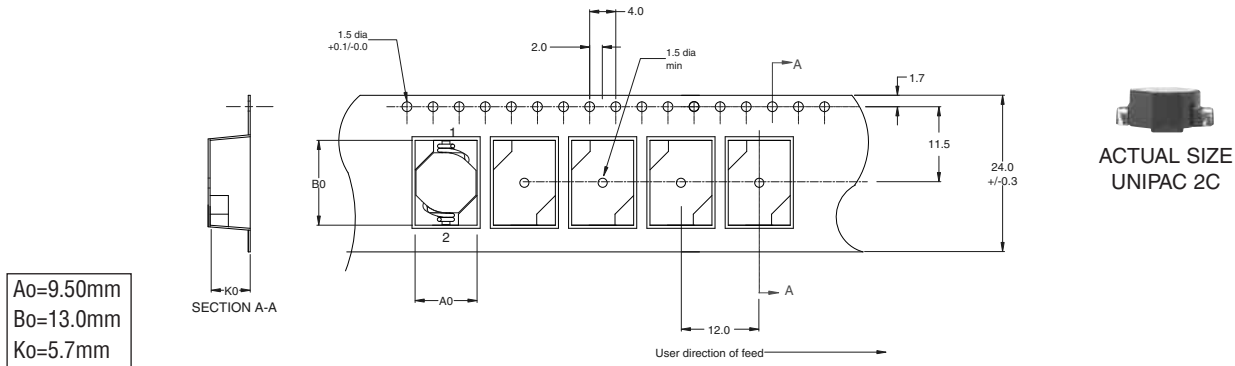
### Mechanical Diagrams



Dimensions in Millimeters.  
 wwilly = (date code) R = revision level  
 xxx = Inductance value per family chart

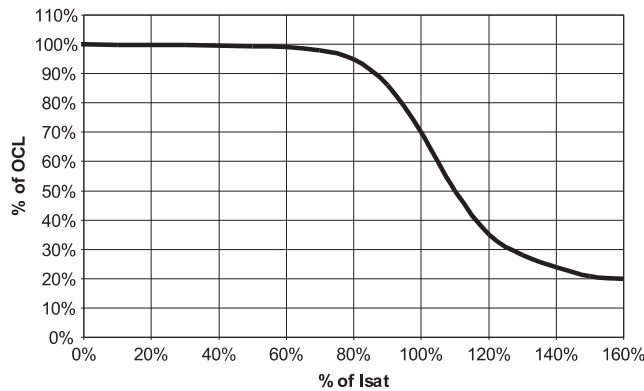
(A) 2.5mm max is width of copper at seating plane. The width above the seating plane may exceed 2.5mm.

**Packaging Information**



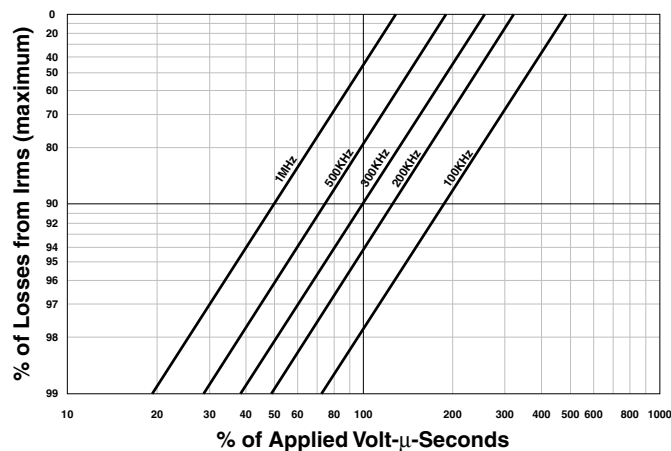
**Inductance Characteristics**

**OCL vs. Isat**



**Core Loss**

**IRMS DERATING WITH CORE LOSS**



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