

Description

- High performance, low profile, surface mount power inductors with a molybdenum permalloy core
- Small footprint and closed magnetic field construction ensure low EMI
- Low DCR and high efficiency
- Frequency range up to 500kHz
- MPP core material



Applications

- PC cards, cellular telephones, pagers, and disk drives
- GPS systems

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

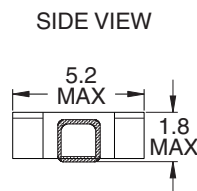
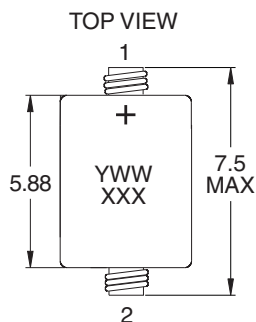
- Supplied in tape and reel packaging, 3900 per reel

Part Number	Inductance μH (rated)	OCL ⁽¹⁾ $\mu\text{H}\pm 20\%$	DCR ⁽²⁾ typ. Ω	I RMS ⁽³⁾ Amperes	I SAT ⁽⁴⁾ Amperes	Volt ⁽⁵⁾ μsec
MP2A-R47-R	0.47	0.47	0.024	3.52	5.80	1.20
MP2A-R68-R	0.68	0.68	0.027	3.31	4.83	1.27
MP2A-1R0-R	1.00	1.21	0.067	2.11	3.63	2.00
MP2A-1R5-R	1.50	1.54	0.073	2.02	3.22	2.09
MP2A-2R2-R	2.20	2.30	0.086	1.87	2.64	2.26
MP2A-3R3-R	3.30	3.21	0.098	1.75	2.23	2.42
MP2A-4R7-R	4.70	4.86	0.117	1.60	1.81	2.64
MP2A-6R8-R	6.80	6.85	0.136	1.49	1.53	2.84
MP2A-8R2-R	8.20	8.54	0.167	1.34	1.54	3.15
MP2A-100-R	10.00	10.02	0.179	1.29	1.42	3.26
MP2A-150-R	15.00	15.18	0.217	1.18	1.16	3.59
MP2A-220-R	22.00	21.40	0.311	0.98	0.97	4.30
MP2A-330-R	33.00	32.74	0.476	0.79	0.79	5.32
MP2A-470-R	47.00	46.48	0.727	0.64	0.66	6.57
MP2A-680-R	68.00	68.53	1.108	0.52	0.54	8.11
MP2A-820-R	82.00	81.15	1.463	0.45	0.50	9.32
MP2A-101-R	100.00	99.65	2.015	0.39	0.45	10.94

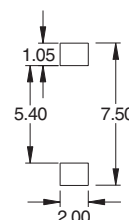
Notes: (1) Open Circuit Inductance Test Parameters: 100 kHz, .25Vrms, 0.0Adc.
 (2) DCR limits 20°C.
 (3) RMS current for an approximate ΔT of 40°C without core loss. It is recommended that the temperature of the part not exceed 125°C.

(4) Peak current for approximately 30% rolloff at 20°C.
 (5) Applied Volt-Time product (V- μs) across the inductor. This value represents the applied V- μs at 300KHz necessary to generate a core loss equal to 10% of the total losses for 40°C temperature rise.

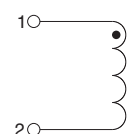
Mechanical Diagrams



PCB PAD LAYOUT



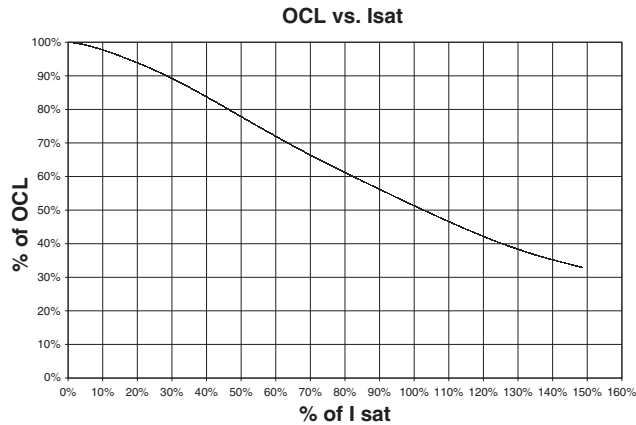
SCHEMATIC



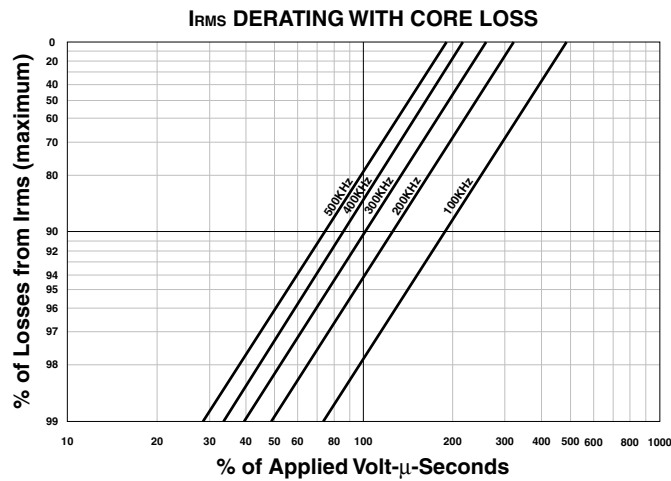
Dimensions in Millimeters.
 Specifications are subject to change without notice.

yww = Date Code
 xxx = Inductance value per family chart

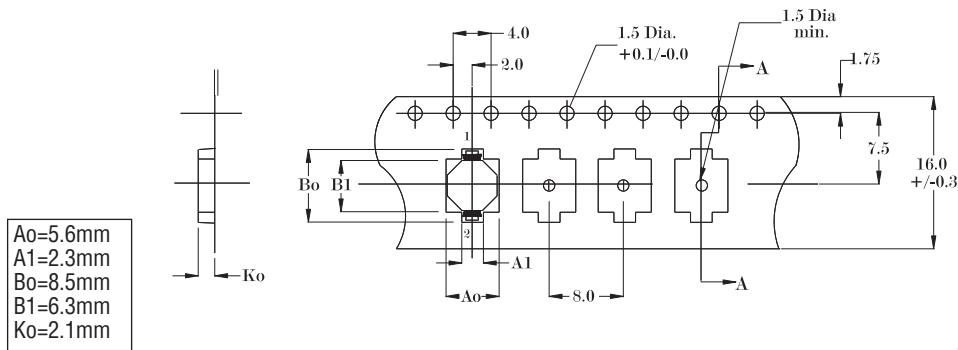
Inductance Characteristics



Core Loss



Packaging Information for MICRO-PAC™ & MICRO-PAC™ PLUS



ACTUAL SIZE
MICRO-PAC PLUS

Parts packaged on 13" Diameter reel,
 3,900 parts per reel.