## HIGH CURRENT POWER INDUCTORS FW PM 0603,0604 SERIES

FEATURES:

- Lowest height in this package footprint.
- Shielded construction.
- Lowest DCR/H, in this package size.
- Handles high transient current spikes without saturation.
- Ultra low buzz noise, due to composite construction.
- Frequency up to 5 MHz .
- The products contain no lead and also support lead-freesoldering.


## OPTIONS:

- Tape \& Reel is Standard (Qty:1000pcs.) Bulk packaging Available for Smaller Quantities
- Tolerance: $\mathrm{M}=20 \%, \mathrm{~N}=30 \%$ is Standard,Tighter Tolerances Available

COMMON APPLCATIONS:

- Excellent for power line DC-DC conversion
- Applications usedin power switching
- Personal computers and other handheldelectronic equipment.


## ELECTRICAL CHARACTERISTICS:

| Part Number |  |  |  | $\begin{aligned} & \bar{\Omega} \\ & \stackrel{\sim}{+} \\ & \stackrel{y}{\Sigma} \end{aligned}$ | $\begin{aligned} & \overline{3} \\ & 0 \\ & 0 \\ & 3 \\ & \underset{3}{0} \\ & \underset{x}{0} \end{aligned}$ | Part Number |  |  | $\begin{aligned} & \overline{3} \\ & \overline{3} \\ & \stackrel{\Sigma}{\Sigma} \end{aligned}$ | $\begin{aligned} & \bar{\sim} \\ & \stackrel{\sim}{\square} \\ & \stackrel{\rightharpoonup}{\Sigma} \end{aligned}$ | $\begin{aligned} & \overline{3} \\ & 0 \\ & 0 \\ & 3 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FWPM 0603H-R10M | 3.0 | 0.10 | 32.5 | 42 | 1.7 | FWPM 0603H-1R0M | 3.0 | 1.0 | 11.0 | 16 | 10 |
| FWPM 0603H-R15M | 3.0 | 0.15 | 26.0 | 38 | 2.5 | FWPM 0603H-1R5M | 3.0 | 1.5 | 9.0 | 14 | 15 |
| FWPM 0603H-R20M | 3.0 | 0.20 | 24.0 | 36 | 3.0 | FWPM 0603H-2R2M | 3.0 | 2.2 | 8.0 | 12 | 20 |
| FWPM 0603H-R22M | 3.0 | 0.22 | 23.0 | 36 | 2.8 | FWPM 0603H-3R3M | 3.0 | 3.3 | 6.0 | 10 | 30 |
| FWPM 0603H-R33M | 3.0 | 0.33 | 20.0 | 30 | 3.9 | FWPM 0603H-4R7M | 3.0 | 4.7 | 5.5 | 6.5 | 40 |
| FWPM 0603H-R47M | 3.0 | 0.47 | 17.5 | 26 | 4.2 | FWPM 0603H-6R8M | 3.0 | 6.8 | 4.5 | 6.0 | 60 |
| FWPM 0603H-R68M | 3.0 | 0.68 | 15.5 | 23 | 5.5 | FWPM 0604H-8R2M | 4.0 | 8.2 | 4.0 | 5.5 | 68 |
| FWPM 0603H-R82M | 3.0 | 0.82 | 13.0 | 20 | 8.0 | FWPM 0604H-100M | 4.0 | 10.0 | 3.0 | 4.5 | 105 |

## TECHNICAL INFORMATION \& PHYSICAL CHARACTERISTICS:

- Test Frequency : $100 \mathrm{KHz} / 0.25 \mathrm{Vdc}$
- Testing Instrument : L:HP4284A, CH11025, CH3302, CH1320, CH1320S LCR METER/Rdc:CH16502, Agilent33420A MICRO OHMMETER.
Heat Rated Current (Irms) will cause the coil temperature rise approximately,
$\triangle T=40^{\circ} \mathrm{C}$ without core loss.
- Saturation Current (Isat) will cause LO to drop approximately $20 \%$
- The part temperature (ambient + temp rise) should not exceed $125^{\circ} \mathrm{C}$ under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
Operating Temperature \& Storage Temperature: $-40^{\circ} \mathrm{C}-+105^{\circ} \mathrm{C}$.

Fig1


Fig2


Dimensions(mm)

| Series | $A(\mathrm{~mm})$ | $A 1(\mathrm{~mm})$ | $\mathrm{B}(\mathrm{mm})$ | $\mathrm{C}(\mathrm{mm})$ | $\mathrm{C} 1(\mathrm{~mm})$ | $\mathrm{D}(\mathrm{mm})$ | $\mathrm{E}(\mathrm{mm})$ | $\mathrm{L}(\mathrm{mm})$ | $\mathrm{G}(\mathrm{mm})$ | $\mathrm{M}(\mathrm{mm})$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fig |  |  |  |  |  |  |  |  |  |  |
| FWPM 0603 | $6.86 \pm 0.5$ | 7.8 max. | 7.0 max. | 3.0 max. | 3.2 max. | $1.6 \pm 0.5$ | $2.1 \pm 0.5$ | 8.7 | 3.7 | 3.5 |
| FWPM 0604 | $6.86 \pm 0.5$ | 7.8 max. | 7.0 max. | 4.0 max. | 4.2 max. | $1.6 \pm 0.5$ | $2.1 \pm 0.5$ | 8.7 | 3.7 | 3.5 |

Note:All specifications subject to change without notice.

