

**SHIELDED POWER INDUCTOR****P7602 Family****Features**

- \* Lead-free (Pb-free)
- \* RoHS compliant
- \* Magnetic Shielding
- \* High Current (to 10A)
- \* Low DCR (to 8mΩ)
- \* Low profile (<4mm)
- \* Surface Mount
- \* Flat top for pick & place

**Applications**

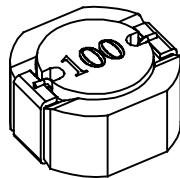
- \* DC-DC Converters

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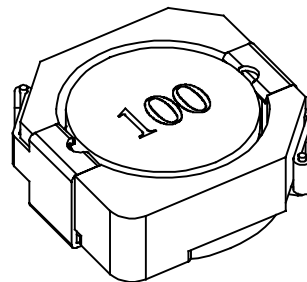
**DESCRIPTION**

The P7602 family comprises low profile, shielded power inductors. Components are available in two mechanical sizes, suited to low-profile applications. The larger 1003 size has lower DCR and higher current rating.

The family provides reliable self-leaded Pb-free terminations. Parts are compliant with RoHS Directive 2002/95/EC, and suitable for Pb-free and conventional placement and reflow.



P7602-0603



P7602-1003



## SPECIFICATIONS

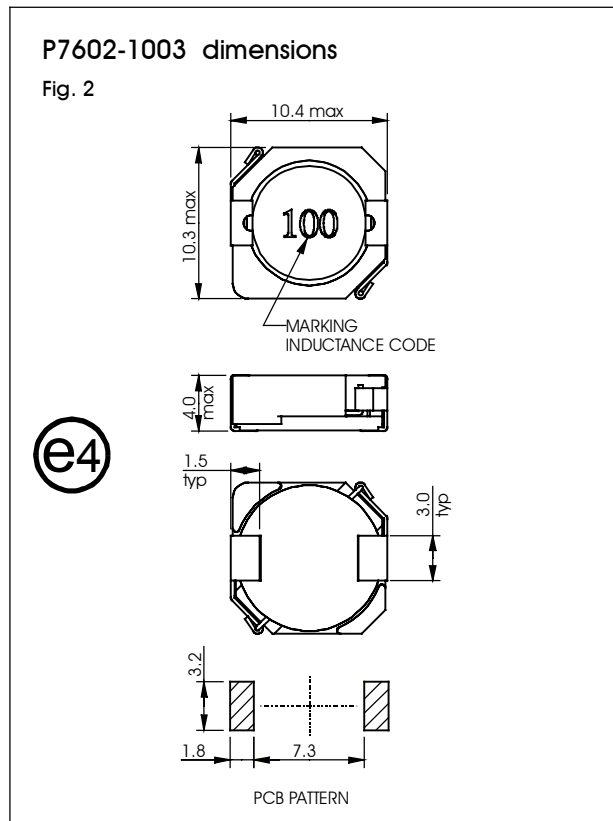
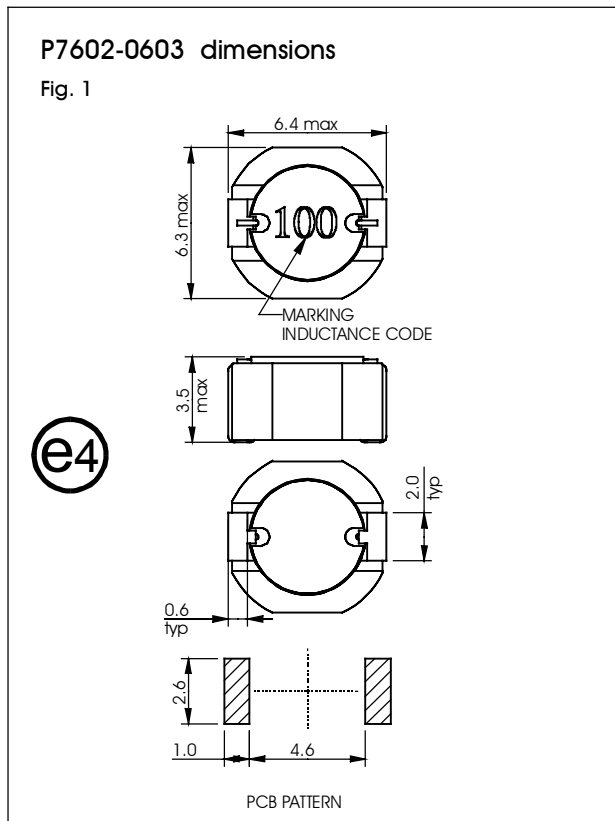
### Electrical

Part Number	Inductance ( $\mu\text{H}$ ) <sup>(1)</sup>	DCR (m $\Omega$ ) Max	Rated Current $I_{\text{RMS}}$ (A) <sup>(2)</sup>	$I_{\text{sat}}$ (A) <sup>(3)</sup>	Rated DC Current $I_{\text{DC}}$ <sup>(4)</sup>
P7602-0603-2R0M	2.0±20%	19	3.3	3.0	-
P7602-0603-2R7M	2.7±20%	22	3.1	2.7	-
P7602-0603-3R3M	3.3±20%	26	2.8	2.6	-
P7602-0603-4R7M	4.7±20%	32	2.5	2.1	-
P7602-0603-6R2M	6.2±20%	35	2.4	1.8	-
P7602-0603-8R2M	8.2±20%	44	2.1	1.5	-
P7602-0603-100M	10±20%	50	2.0	1.5	-
P7602-0603-120M	12±20%	62	1.7	1.3	-
P7602-0603-150M	15±20%	77	1.5	1.1	-
P7602-0603-180M	18±20%	82	1.5	1.0	-
P7602-0603-220M	22±20%	106	1.3	0.97	-
P7602-0603-270M	27±20%	140	1.1	0.82	-
P7602-0603-330M	33±20%	162	1.0	0.76	-
P7602-0603-390M	39±20%	192	0.96	0.70	-
P7602-0603-470M	47±20%	209	0.89	0.68	-
P7602-0603-560M	56±20%	257	0.80	0.60	-
P7602-0603-680M	68±20%	320	0.71	0.56	-
P7602-0603-820M	82±20%	420	0.61	0.47	-
P7602-0603-101M	100±20%	477	0.57	0.45	-
P7602-0603-151M	150±20%	664	0.48	0.37	-
P7602-1003-1R5Y	1.5±30%	8.1	-	-	10
P7602-1003-2R5Y	2.5±30%	10	-	-	7.5
P7602-1003-3R8Y	3.8±30%	13	-	-	6
P7602-1003-5R2Y	5.2±30%	22	-	-	5.5
P7602-1003-7R0Y	7.0±30%	27	-	-	4.8
P7602-1003-100Y	10±30%	35	-	-	4.4
P7602-1003-150Y	15±30%	50	-	-	3.6
P7602-1003-220Y	22±30%	73	-	-	2.9
P7602-1003-330Y	33±30%	93	-	-	2.3
P7602-1003-470Y	47±30%	128	-	-	2.1
P7602-1003-680Y	68±30%	213	-	-	1.5
P7602-1003-101Y	100±30%	304	-	-	1.35
P7602-1003-151Y	150±30%	506	-	-	1.15
P7602-1003-221Y	220±30%	756	-	-	0.92
P7602-1003-331Y	330±30%	1090	-	-	0.70

### Notes

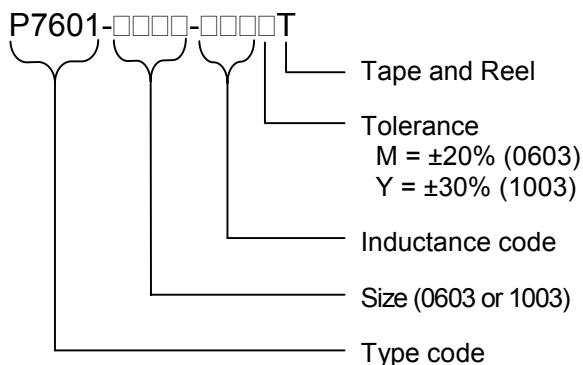
1. Inductance measured at 100kHz, 1V (P7602-1003 100mV).
2. Rated current,  $I_{\text{RMS}}$ , is the current at which the temperature rise is 40°C (max).
3. Saturation current,  $I_{\text{sat}}$ , is the DC current at which the zero-current inductance drops by 30% (typ).
4. Rated DC Current,  $I_{\text{DC}}$ , is the DC current at which the temperature rise is 30°C, or the zero-current inductance drops by 35%, whichever current is less.
5. Operating temperature -25°C to +105°C.
6. For non-standard inductance values, please contact Profec.

## CONSTRUCTION



Dimensions shown are in millimetres  
Terminal plating JESD97 category = e4.  
Recommended reflow solder profile: 2 minutes @ 150-200°C, 10 seconds @ 260°C; time above 217°C 60 seconds maximum.

## ORDERING CODE



## ABSOLUTE MAXIMUM RATINGS

Storage temperature	-40°C to +125°C
Operating temperature	-25°C to +105°C
Soldering temperature profile peak	260°C 10s

Handle in accordance with IPC/JEDEC J-STD-033 procedure for components classified as IPC/JEDEC J-STD-020 Moisture Sensitivity Level 2.

**PROFEC**  
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