Shielded High Current Power Choke

PCXA605

Features

- High Operating Temperature Range
- High Efficiency
- High Current with Soft Saturation
- Low DCR
- Suitable for pick and place
- Very low acoustic noise and very low leakage flux noise.

Electrical

Inductance Range: 1.0µH to 4.7µH
Tolerance: ±20% Across entire series
Test Frequency: 100KHz, 0.1V
Operating Temp: -40°C to +125°C
MSL: Level 1
Irms: Current at which ΔT=20°C and ΔT=40°C temp rise without core loss.
Isat: Current at which Inductance drop is approximately 30%. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions.

Resistance to Soldering Heat

Pre-Heat: 150°C, 1 minute.
Solder Composition: Sn96.5% / Ag3% / Cu0.5%
Solder Temp: 245°C ± 5°C
Immersion Time: 4 sec. ± 1 sec.
Depth: Completely cover the termination

Test Equipment

(L): HP4284A LCR meter or equivalent
DCR: CH16502, Agilent 33420A Micro-Ohmmeter

Physical

Packaging: 1000 pieces per 13 inch reel.
Marking: EIA Inductance Code/ Date Code

All specifications subject to change without notice.

Reflow Soldering

Pre-Heating

Soldering

Natural Cooling

Reflow times: 3 times max.

Ref 0.220 (5.6)

Reflow Soldering

Dimensions: Inches (mm)

<table>
<thead>
<tr>
<th>Allied Part Number</th>
<th>Inductance (µH) ±20% @ 0A</th>
<th>DCR (mΩ) Typ. @25°C</th>
<th>DCR (mΩ) Max @25°C</th>
<th>Irms (A) Typ</th>
<th>Isat (A) Typ</th>
<th>Dim D Inch/mm (±.012/ .3)</th>
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<td>.209/5.3</td>
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Allied Part Number

RoHS

949-356-1780

Allied Components International

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Typical Performance Curves

PCXA605-1R0

PCXA605-1R2

PCXA605-1R5

PCXA605-1R8

PCXA605-2R2

PCXA605-3R3

PCXA605-4R3

PCXA605-4R7

0 5 10 15 20 25
DC CURRENT (A)
0 0.32 0.64 0.96 1.28 1.6
INDUCTANCE (µH)
0 12 24 36 48 60
TEMP. RISE (°C)

0 4.8 9.6 14.4 19.2 24
DC CURRENT (A)
0 0.4 0.8 1.2 1.6 2
INDUCTANCE (µH)
0 12 24 36 48 60
TEMP. RISE (°C)

0 4.4 8.8 13.2 17.6 22
DC CURRENT (A)
0 0.5 1 1.5 2 2.5
INDUCTANCE (µH)
0 11 22 33 44 55
TEMP. RISE (°C)

0 4 8 12 16 20
DC CURRENT (A)
0 0.6 1.2 1.8 2.4 3
INDUCTANCE (µH)
0 12 24 36 48 60
TEMP. RISE (°C)

0 2.8 5.6 8.4 11.2 14
DC CURRENT (A)
0 1.4 2.8 4.2 5.6 7
INDUCTANCE (µH)
0 16 32 48 64 80
TEMP. RISE (°C)

0 2.6 5.2 7.8 10.4 13
DC CURRENT (A)
0 1.6 3.2 4.8 6.4 8
INDUCTANCE (µH)
0 14 28 42 56 70
TEMP. RISE (°C)