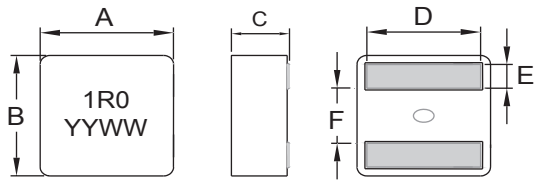
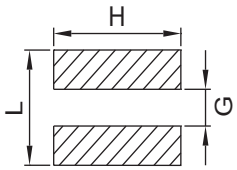
RoHS

Shielded High Current Power Choke — PCXA603

Dimensions: Inches (mm)

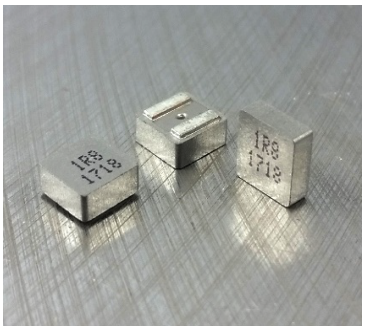




A	B	C	D	E	F
.260±.008 (6.6±0.2)	.252±.008 (6.4±0.2)	See Table Below	See Table Below	.055±.008 (1.4±0.2)	.102±.010 (2.6±0.25)

Recommend PCB Layout

L	G	H
.220 (5.6) Ref	.010 (2.5) Ref	.220 (5.6) Ref



Allied Part Number	Inductance (µH) ±20% @ 0A	DCR (mΩ) Typ.@25°C	DCR (mΩ) Max@25°C	Irms (A) Typ 20°C Rise	Irms (A) Typ 40°C Rise	Isat (A) Typ	Isat (A) Max	Dim C Inch/mm (±.008/.2)	Dim D Inch/mm (±.012/.3)
PCXA603-R18M	0.18	1.60	1.75	24	32	40.0	36.0	.11/2.8	.209/5.30
PCXA603-R33M	0.33	2.25	2.50	20	25	32.0	28.0	.11/2.8	.219/5.55
PCXA603-R56M	0.56	3.00	3.31	17	22	29.0	25.0	.11/2.8	.209/5.30
PCXA603-1R0M	1.00	5.50	6.05	13	18	23.0	18.0	.11/2.8	.205/5.20
PCXA603-1R2M	1.20	6.70	7.40	12	16	22.0	16.0	.11/2.8	.203/5.15
PCXA603-1R8M	1.80	9.20	10.2	10	14	18.2	13.0	.114/2.9	.201/5.10
PCXA603-2R2M	2.20	11.0	12.2	7.0	10	15.9	11.0	.114/2.9	.199/5.05
PCXA603-3R3M	3.30	18.8	20.8	6.0	8.0	12.2	9.00	.114/2.9	.197/5.00
PCXA603-4R5M	4.50	23.0	25.3	5.0	7.0	10.0	8.00	.114/2.9	.197/5.00

All specifications subject to change without notice.

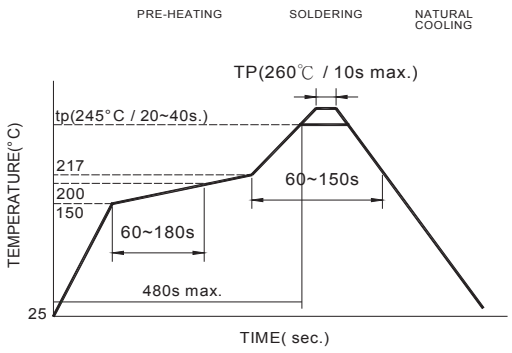
Features

- 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: 0.18µH to 4.5µH
Tolerance: ±20% Across entire series
Test Frequency: 100KHz, 0.1V
Operating Temp: -40ºC to +125ºC
MSL: Level 1
Irms: Current at which Δ T=20ºC and Δ T=40ºC temp rise without core loss.
Isat: Current at which Inductance drop is appoximately 30%. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions.

Reflow Soldering



Reflow times: 3 times max.

Resistance to Soldering Heat

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

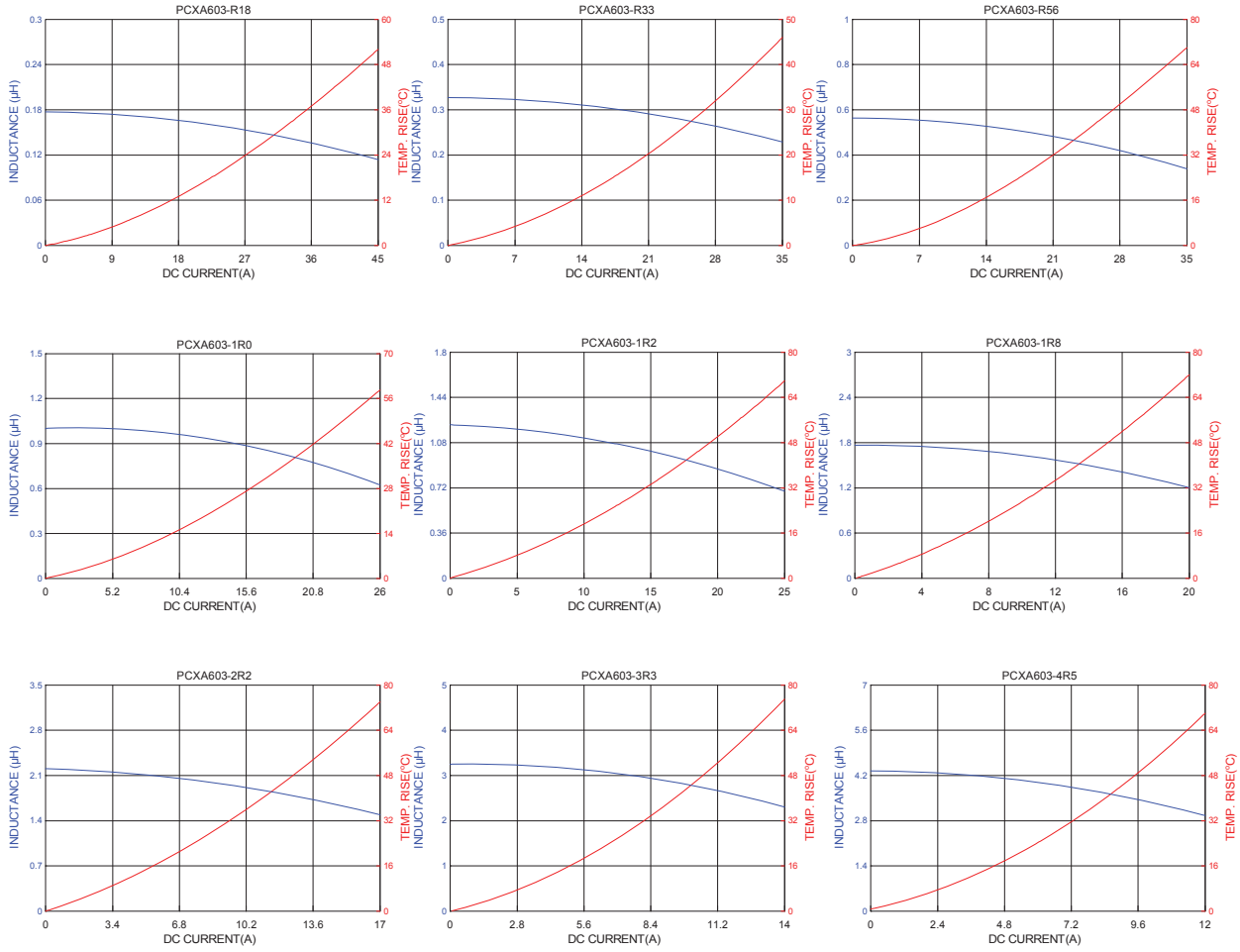
Test Equipment

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

Physical

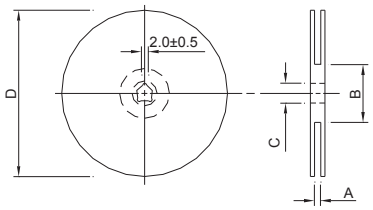
Packaging: 1000 pieces per 13 inch reel.
Marking: EIA Inductance Code/ Date Code

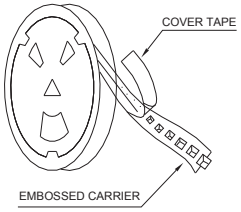
Typical Performance Curves



Packaging Information

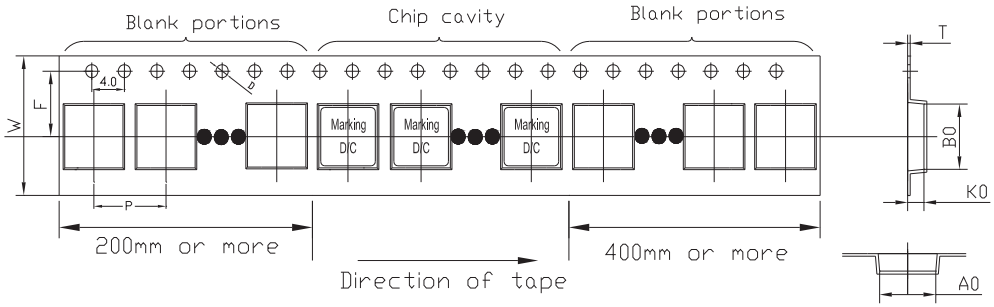
Reel Dimension





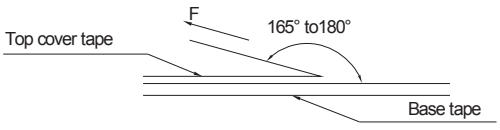
Type	A(mm)	B(mm)	C(mm)	D(mm)
330x12mm	16.4+2/-0	100±2	13+0.5/-0.2	330

Tape Dimension



Bo(mm)	Ao(mm)	Ko(mm)	P(mm)	W(mm)	F(mm)	T(mm)	D(mm)
6.8±0.1	7.0±0.1	3.3±0.1	12.0±0.1	16.±0.3	7.5±0.1	0.35±0.05	1.5±0.1

Tearing Off Force



The force for tearing off cover tape is 10 to 130 grams in the arrow direction under the following conditions(referenced ANSI/EIA-481-D-2008 of 4.11 standard).

Room Temp. (℃)	Room Humidity (%)	Room atm (hPa)	Tearing Speed mm/min
5~35	45~85	860~1060	300

Application Notice

- Storage Conditions
  To maintain the solderability of terminal electrodes:
  1. PCXA603 Series meets IPC/JEDEC J-STD-020D standard-MSL, level 1.
  2. Temperature and humidity conditions: Less than 40℃ and 60% RH.
  3. Recommended products should be used within 12 months form the time of delivery.
  4. The packaging material should be kept where no chlorine or sulfur exists in the air.
- Transportation
  1. Products should be handled with care to avoid damage or contamination from perspiration and skin oils.
  2. The use of tweezers or vacuum pick up is strongly recommended for individual components.
  3. Bulk handling should ensure that abrasion and mechanical shock are minimized.