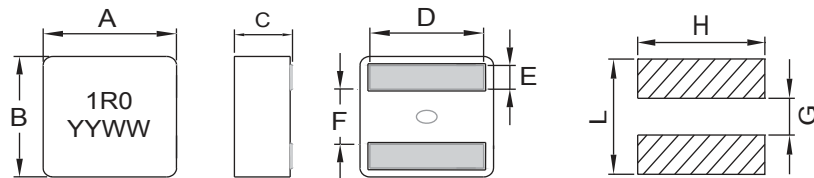




Shielded High Current Power Choke

PCXA603



Dimensions: $\frac{\text{Inches}}{\text{(mm)}}$

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	I _{rms} (A) Typ		I _{sat} (A)		Dim C Inch/mm (±.008/.2)	Dim D Inch/mm (±.012/.3)
				20°C Rise	40°C Rise	Typ	Max		
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

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: -40°C to +125°C
MSL: Level 1
I_{rms}: Current at which ΔT=20°C and ΔT=40°C temp rise without core loss.
I_{sat}: Current at which Inductance drop is approximately 30%. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions.

All specifications subject to change without notice.

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

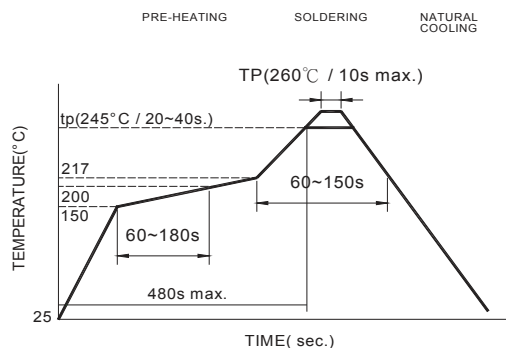
Test Equipment

(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

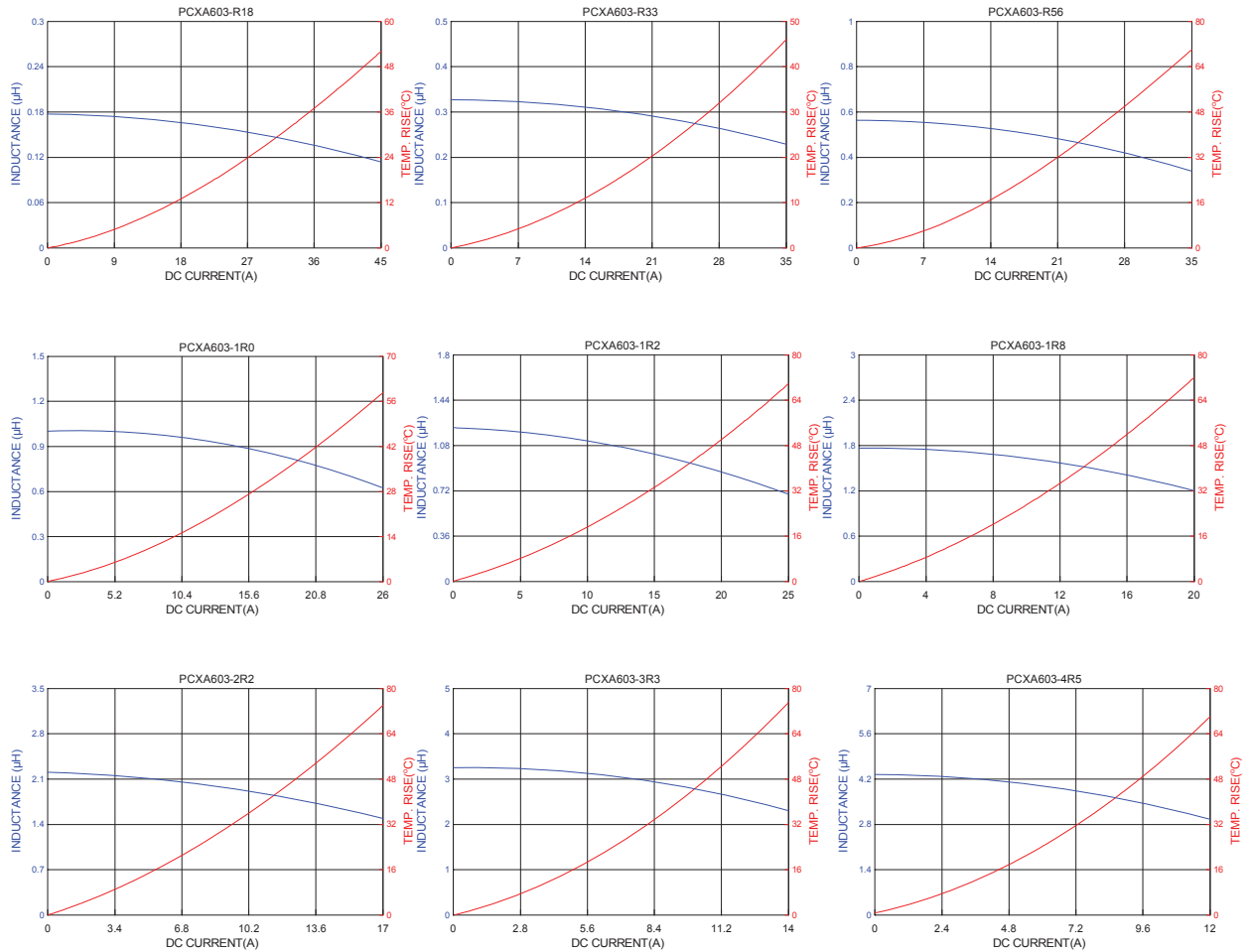
Reflow Soldering



Reflow times: 3 times max.



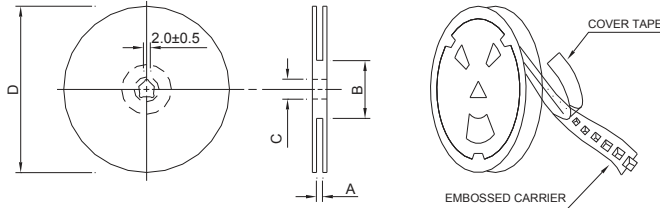
Typical Performance Curves





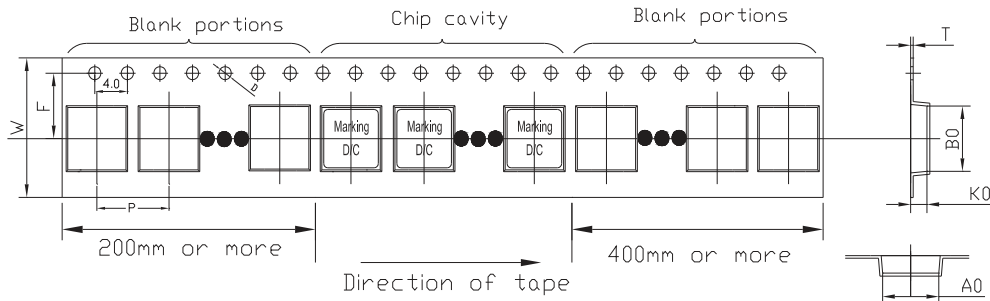
Packaging Information

Reel Dimension



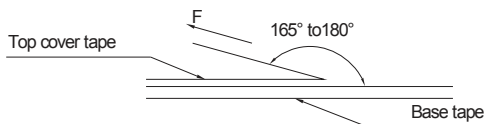
Type	A(mm)	B(mm)	C(mm)	D(mm)
330x12mm	16.4+2/-0	100±2	13+0.5/-0.2	330

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. (°C)	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°C 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.