



HLTGP0603

FEATURES 特性

1. High Q value and high self-resonant frequency with Ferrite material.
高Q值高SRF的铁氧体材料.
2. Small chip suitable for surface mounting.
小尺寸，表面贴装.
3. Tight inductance tolerance and high reliability.
高精度，高可靠性.

APPLICATIONS 用途

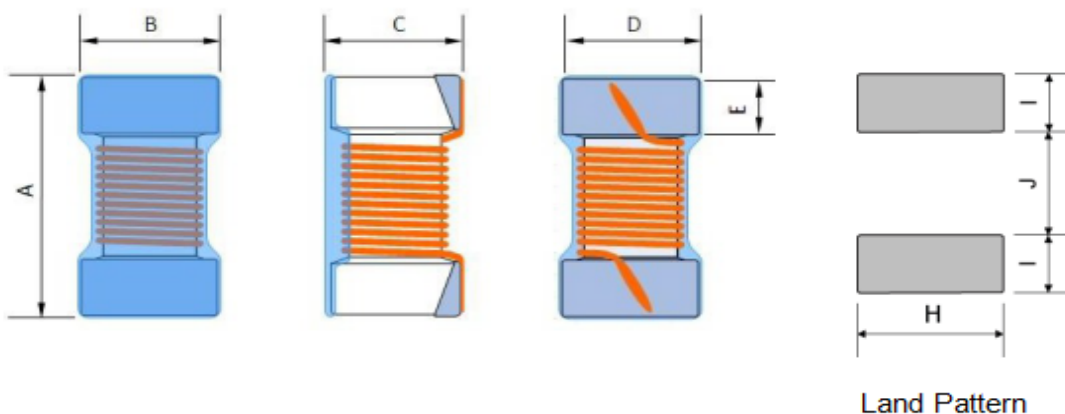
1. Mobile phone TD-LTE/5G communication.
移动电话，TD-LTE，5G通讯.
2. High frequency circuit in communication equipments.
高频线路的通讯设备.
3. Bluetooth，W-LAN，Broadband network.
蓝牙，无线宽带网络.

PART NUMBERING SYSTEM 品名系统

HLTGP	0420	- 220NH/	J
(1)	(2)	(3)	(4)

- (1) Type 型号 (2) External Dimensions外形尺寸 (3) Inductance 电感值
(4) Inductance Tolerance 电感值公差 (J: $\pm 5\%$ K: $\pm 10\%$ M: $\pm 20\%$)

SHAPES AND DIMENSIONS 外形尺寸 (Unit:mm)



TYPE(型号)	A	B	C	D	E	H	I	J
HLTGP0603	1.8 Max	1.12 Max	1.02 Max	0.76 Typ	0.33 Typ	1.02 ref	0.64 ref	0.64 ref



Product title	Size (LxWxH)	Inductance	Rated current
HLTGP0603	1.8mm Max/1.12mm Max/1.02mm Max	47nH~22uH	1200~70mA

STRUCTURE AND MATERIAL 结构与材料



Part	Components	Material
A	Coating	Ultraviolet epoxy resin
B	Core	Ferrite
C	Wire	Polyurethane enameled copper wire
D	Electrodes	Ag/Ag-Pd with Ni and Sn plating

ELECTRICAL CHARACTERISTICS 电特性

1. Operating and storage temperature range (individual chip without packing): -25°C to $+125^{\circ}\text{C}$
2. Storage temperature range (packaging conditions): -10°C ~ $+40^{\circ}\text{C}$ and RH 70% (Max.)

TEST AND MEASUREMENT PROCEDURES 测试和测量程序

1. Inductance (L)

Test equipment: Keysight E4991B / Agilent 16197A or equivalent
Test signal: -13dBm or 10mA

2. DC Resistance (DCR)

Test equipment: Agilent34420A / Agilent 4338B or equivalent

3. Q Factor (Q)

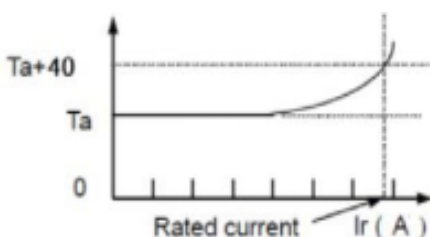
Test equipment: Keysight E4991B / Agilent 16197A or equivalent

4. Self-Resonant Frequency (SRF)

Test equipment: Keysight E4991B / Agilent 16197A / HP 8753E or equivalent
Test signal: -20dBm or 50 mV

5. Rated Current (Irms)

Irms is direct electric current as chip surface temperature rose just 20 against chip initial surface temperature (T_a)





RECOMMENDED SOLDERING TECHNOLOGIES 推荐的焊接技术

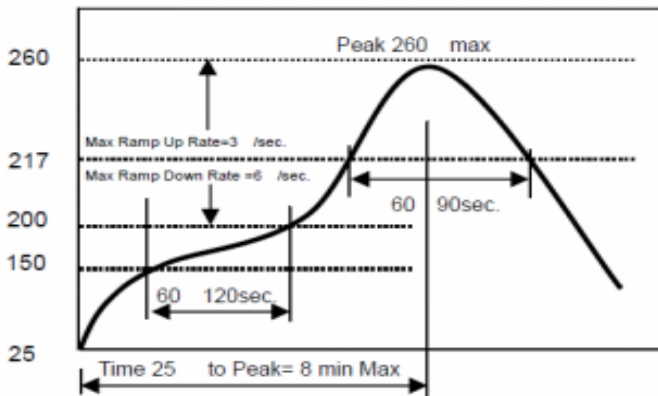
Re-flowing Profile

Preheat condition: 150~200 /60~120sec. Allowed time above 217C: 60~90sec.

Max temp: 260

Max time at max temp: 10sec Solder paste: Sn/3.0Ag/0.5Cu Allowed

Reflow time: 2 times max



SPECIFICATION TABLE:

HLTGP0603 Series

Part Number	Inductance	Tolerance	Quality Factor	L/Q Test Freq.	Max. DC Resistance	Max. Rated Current	Self-resonant Frequency
Symbol	L		Q (Typ)	Freq.	DCR	I _{rms}	SRF (Min)
Units				MHz	Ω	mA	MHz
HLTGP0603-47nH/□	47nH	K,M	17	7.9	0.060	1200	2350
HLTGP0603-51nH/□	51nH	K,M	17	7.9	0.070	1050	2300
HLTGP0603-100nH/□	100nH	K,M	17	7.9	0.110	850	1370
HLTGP0603-120nH/□	120nH	J,K,M	17	7.9	0.180	670	1340
HLTGP0603-150nH/□	150nH	J,K,M	17	7.9	0.120	820	1260
HLTGP0603-180nH/□	180nH	J,K,M	17	7.9	0.190	670	1060



HLTGP0603-200nH/□	200nH	J,K,M	17	7.9	0.140	740	1030
HLTGP0603-220nH/□	220nH	J,K,M	17	7.9	0.200	650	850
HLTGP0603-250nH/□	250nH	J,K,M	17	7.9	0.170	690	910
HLTGP0603-270nH/□	270nH	J,K,M	17	7.9	0.240	630	780
HLTGP0603-330nH/□	330nH	J,K,M	17	7.9	0.290	510	730
HLTGP0603-390nH/□	390nH	J,K,M	17	7.9	0.330	490	750
HLTGP0603-470nH/□	470nH	K,M	17	7.9	0.370	470	670
HLTGP0603-500nH/□	500nH	J,K,M	17	7.9	0.450	410	610
HLTGP0603-560nH/□	560nH	J,K,M	17	7.9	0.510	380	590
HLTGP0603-620nH/□	620nH	J,K,M	17	7.9	0.480	390	570
HLTGP0603-680nH/□	680nH	J,K,M	17	7.9	0.770	310	520
HLTGP0603-780nH/□	780nH	J,K,M	17	7.9	0.830	300	480
HLTGP0603-820nH/□	820nH	J,K,M	17	7.9	0.880	290	500
HLTGP0603-1uH/□	1uH	J,K,M	18	7.9	0.940	280	410
HLTGP0603-1.2uH/□	1.2uH	J,K,M	17	7.9	1.100	260	370
HLTGP0603-1.5uH/□	1.5uH	J,K,M	17	7.9	1.300	240	340
HLTGP0603-1.8uH/□	1.8uH	J,K,M	17	7.9	1.400	230	190
HLTGP0603-2.2uH/□	2.2uH	J,K,M	17	7.9	1.500	220	120
HLTGP0603-2.7uH/□	2.7uH	J,K,M	17	7.9	1.600	210	70
HLTGP0603-3.3uH/□	3.3uH	J,K,M	17	7.9	1.800	200	60
HLTGP0603-3.9uH/□	3.9uH	J,K,M	17	7.9	1.900	190	50



HLTGP0603-4.7uH/□	4.7uH	J,K,M	18	7.9	2.700	160	50
HLTGP0603-5.6uH/□	5.6uH	J,K,M	18	7.9	3.000	150	40
HLTGP0603-6.8uH/□	6.8uH	J,K,M	17	7.9	4.000	130	40
HLTGP0603-7.8uH/□	7.8uH	J,K,M	17	7.9	4.400	120	40
HLTGP0603-8.2uH/□	8.2uH	J,K,M	17	7.9	4.500	110	40
HLTGP0603-10uH/□	10uH	J,K,M	17	7.9	5.000	100	30
HLTGP0603-15uH/□	15uH	J,K,M	17	7.9	9.500	90	20
HLTGP0603-18uH/□	18uH	J,K,M	17	7.9	10.400	80	20
HLTGP0603-22uH/□	22uH	J,K,M	17	7.9	11.400	70	20

: Please specify the inductance tolerance code (J=±5%, K=±10%, M=±20%).