



Introduction and Characteristics 产品介绍及特性

INTRODUCTION

产品介绍

◆ Multilayer chip power inductors are SMD components that possess a ultra-low DC resistance and low profile. This component can keep low inductance variation in high current application. Therefore, it is suitable in DC-DC converter.

◆ 片式功率电感是具有低直流电阻和小体积的片式元件。该元件能在通过大电流情况下保持较小的感量变化，因而适用于 DC-DC 转换器。

CHARACTERISTICS

特性

◆ Monolith structure for high reliability
 ◆ Compact size inductor possible
 ◆ No cross coupling due to magnetic shield
 ◆ Very large rated current and low direct-current resistance
 ◆ Excellent solderability and high heat resistance for reflow soldering or wave soldering

◆ 积层独石结构、高可靠性
 ◆ 体积小
 ◆ 良好的磁屏蔽，无交叉耦合
 ◆ 超大额定电流，极低直流电阻
 ◆ 良好的焊接性，适合于回流焊或波峰焊

APPLICATIONS

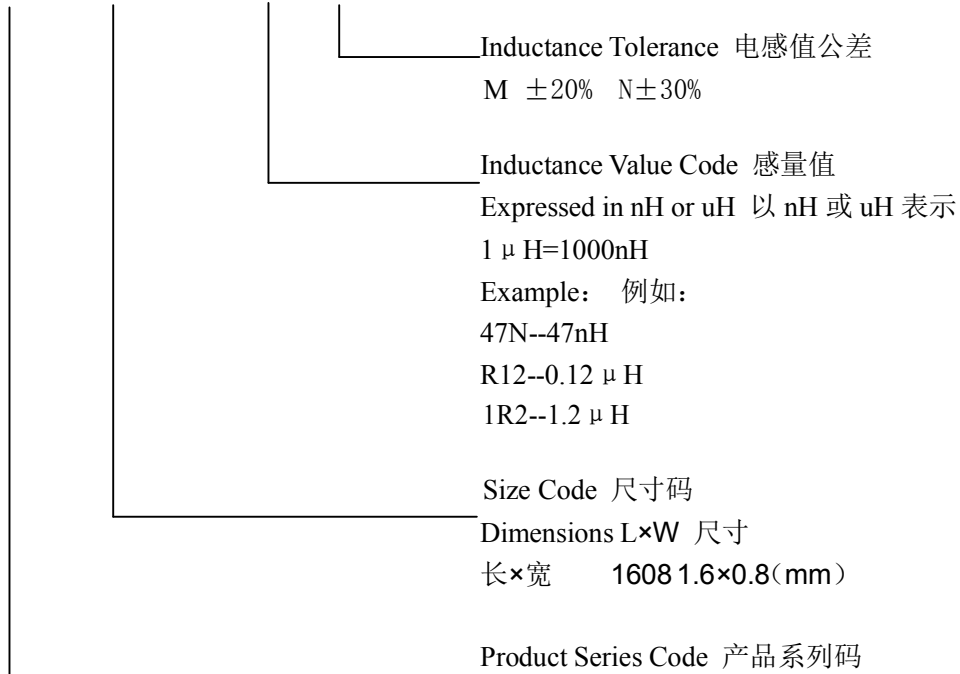
应用产品

◆ digital cameras personal computers etc
 ◆ DC-DC converters and power modules can be applied in the following products. for example, cellular phone, DSC, DVC, PDA, DVD and HDD

◆ 数码相机、电脑、数字电视、机顶盒
 ◆ 适用于手机、DSC、DVC、PDA、DVD 及 HDD 等 DC-DC 转换器和电源模组

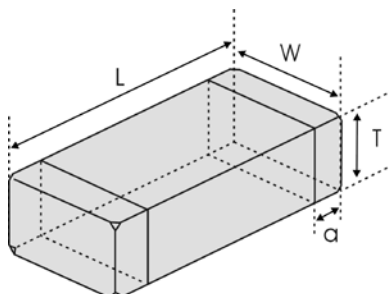
PRODUCT IDENTIFICATION 产品型号

AMPI 1608 — R47 M



SHAPE AND DIMENSIONS 外观尺寸

Unit: mm [inch]



Type	L	W	T	a
MCL1608 [0603]	1.6±0.15 [.063±.006]	0.8±0.15 [.031±.006]	0.8±0.15 [.031±.006]	0.3±0.2 [.012±.008]
MCL2012 [0805]	2.0 (+0.3, -0.1) [.079 (+.012, -.004)]	1.25±0.2 [.049±.008]	0.85±0.2 [.033±.008]	0.5±0.3 [.020±.012]
			1.25±0.2 [.049±.008]	

SPECIFICATIONS 规格特性

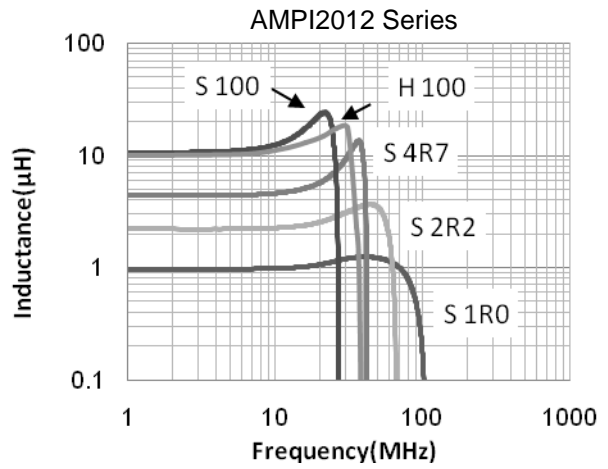
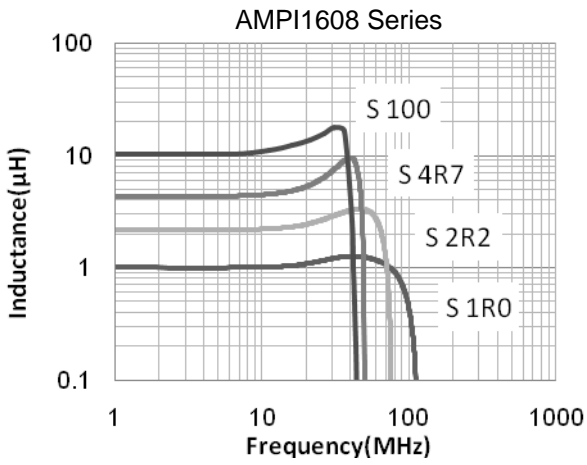
AMPI 1608(0603) TYPE

Part Number	Inductance	L Test Freq.	Min. Self-resonant Frequency	DC Resistance	Max. Rated Current	Thickness
Units	μH	MHz	MHz	Ω	mA	mm [inch]
Symbol	L	Freq.	S.R.F	DCR	I _r *	T
AMPI1608-R10M	0.1	1	240	0.14±30%	700	0.8±0.15
AMPI1608-R22M	0.22	1	150	0.27±30%	550	
AMPI1608-R47M	0.47	1	105	0.42±30%	400	
AMPI1608-1R0M	1.0	1	75	0.20±30%	190	
AMPI1608-2R2M	2.2	1	50	0.40±30%	140	
AMPI1608-4R7M	4.7	1	35	0.60±30%	100	
AMPI1608-100M	10	1	20	0.90±30%	50	

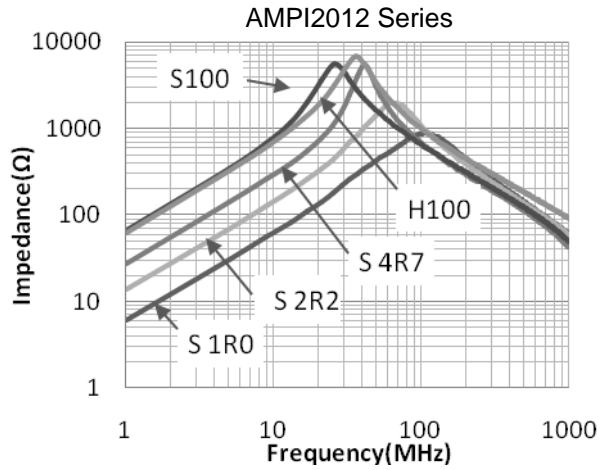
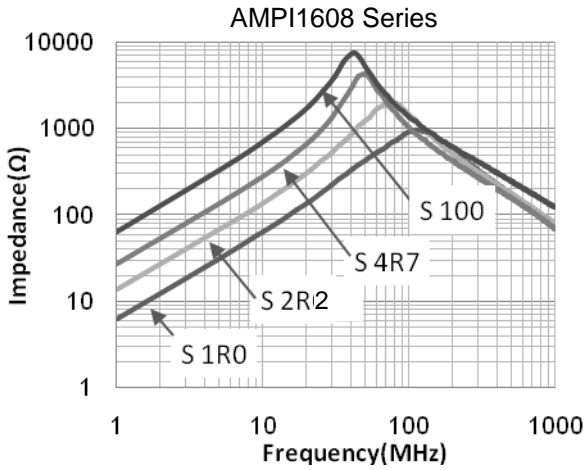
AMPI 2012(0805) TYPE

Part Number	Inductance	L Test Freq.	Min. Self-resonant Frequency	DC Resistance	Max. Rated Current	Thickness
Units	μH	MHz	MHz	Ω	mA	mm [inch]
Symbol	L	Freq.	S.R.F	DCR	I _r *	T
AMPI2012-R10M	0.1	1	235	0.07±30%	1000	0.85±0.2
AMPI2012-R22M	0.22	1	170	0.13±30%	800	
AMPI2012-R47M	0.47	1	125	0.18±30%	550	
AMPI2012-1R0M	1.0	1	75	0.20±30%	300	
AMPI2012-2R2M	2.2	1	50	0.28±30%	220	
AMPI2012-4R7M	4.7	1	25	0.30±30%	180	
AMPI2012-100M	10	1	15	0.50±30%	60	1.25±0.2

INDUCTANCE vs. FREQUENCY



Impedance vs. Frequency Characteristics



Inductance vs. DC Current Characteristics

