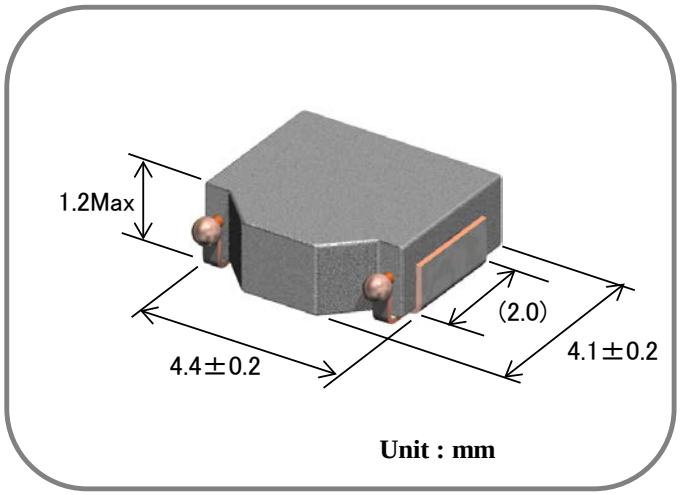
SPM4012-CA02 Series

SMD Power Inductor

Component Image & Dimension



Unit : mm

Features

a) Small Footprint and Low Profile Design :
Footprint : 4.4 x 4.1 mm Typ.
Height : 1.2mm Max.
b) High Power Handling Capability :
Small Copper Loss
Using Large Saturation Induction of
Fe- based metals
c) Flat inductance performance over temperature
based on the high curie temperature of the iro
powder core material.
d) Automatic Mounting in Tape&Reel Package.

Applications

In-vehicle infotainment only

Electrical Specification (Provisional value)

TDK Identification		Lo / Inductance at 0A (uH)	Tol. (%)	Test Freq. (kHz)	DC Resistance Max. (mΩ)	DC Resistance Typ. (mΩ)	Rated DC Current Isat (A) Typ.	Rated DC Current Itemp (A) Typ.
SPM4012T-	R47M-CA02	0.47	+/-20%	100	17.6max	16.0	8.5	6.7
SPM4012T-	1R0M-CA02	1.00	+/-20%	100	36.3max	33.0	6.4	4.7
SPM4012T-	1R5M-CA02	1.50	+/-20%	100	65.7max	57.1	5.8	3.5
SPM4012T-	2R2M-CA02	2.20	+/-20%	100	85.5max	74.3	4.8	3.1
SPM4012T-	3R3M-CA02	3.30	+/-20%	100	126.5max	110.0	3.5	2.6
SPM4012T-	4R7M-CA02	4.70	+/-20%	100	196.7max	171.0	3.3	1.7

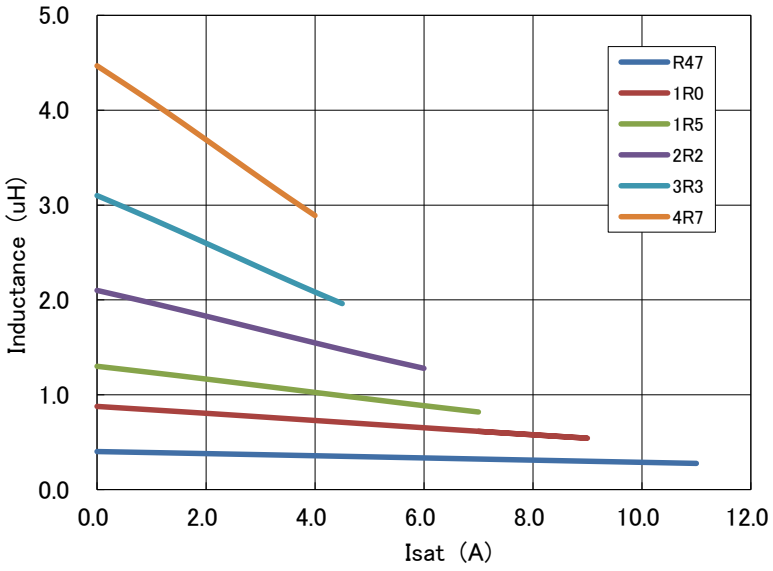
Note. *Isat : Based on the inductance change.(drop -30% Typ. from Lo)*

Itemp : Based on the self temperature rise. (+40 ℃ Typ.)

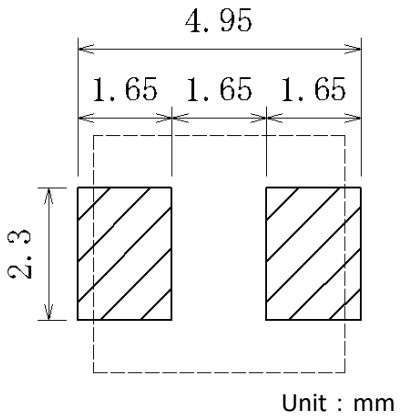
Operating Temperature Range: -40 ℃～+105 ℃ (including self temperature rise)

Caution: Please contact our sales person when you consider organic solvent or aqueous cleaning.

Inductance vs.DC Superposition



Recommended pad layout



Unit : mm