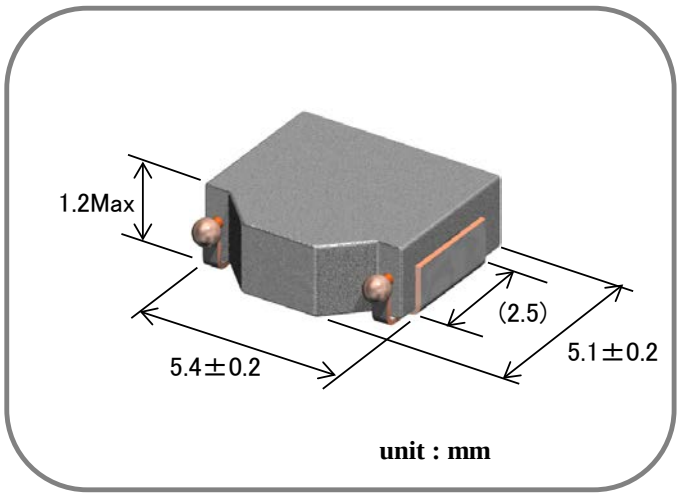
SPM5012-CA02 Series

SMD Power Inductor

Component Image & Dimension



unit : mm

Features

a) Small Footprint and Low Profile Design :
Footprint : 5.4 x 5.1 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.
SPM5012T-	R47M-CA02	0.47	+/-20%	100	23.1max	21.0	9.0	5.4
SPM5012T-	1R0M-CA02	1.00	+/-20%	100	35.2max	32.0	7.5	4.4
SPM5012T-	1R5M-CA02	1.50	+/-20%	100	46.2max	42.0	6.0	3.8
SPM5012T-	2R2M-CA02	2.20	+/-20%	100	67.7max	61.5	5.8	3.2
SPM5012T-	3R3M-CA02	3.30	+/-20%	100	110.0max	100.0	4.5	2.5
SPM5012T-	4R7M-CA02	4.70	+/-20%	100	155.1max	141.0	3.5	2.1
SPM5012T-	6R8M-CA02	6.80	+/-20%	100	253.0max	230.0	2.9	1.6
SPM5012T-	100M-CA02	10.00	+/-20%	100	390.5max	355.0	2.2	1.3

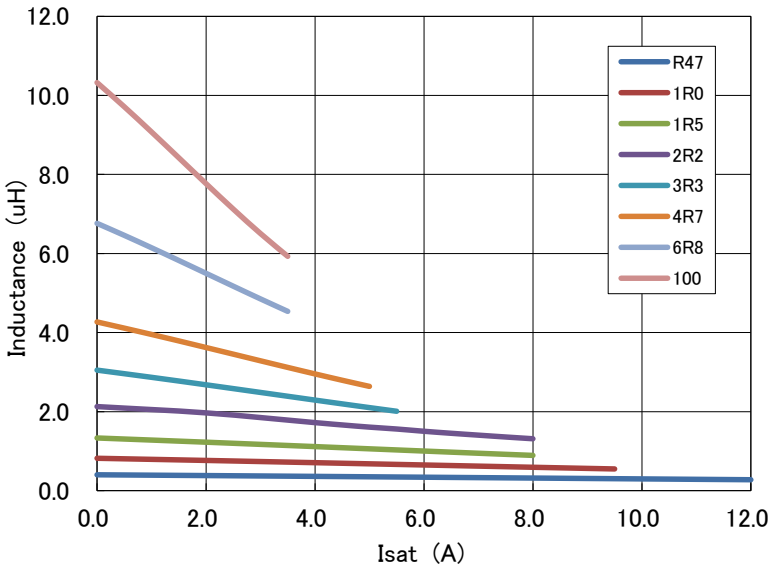
Note. *Isat : Based on the inductance change.(drop -30% Typ. from Lo)*

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

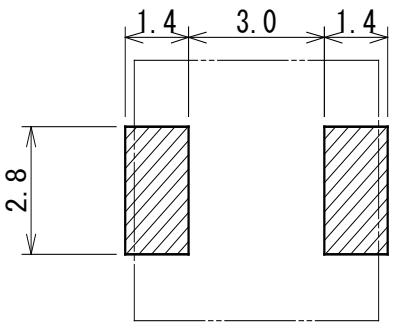
Operating Temperature Range: -40 ℃～+105 ℃ (including self temperature rise)

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

Inductance vs.DC Superposition



Recommended pad layout



Unit : mm