SMD Molding Power Inductor

◆Features

1.Metal Material for large current and low loss
2.High performance（lsat）realized by metal dust core
3.Low loss realized with low Rdc
4.Closed magnetic circuit design reduces leakage flux
5.Vinyl thermal spray,better surface compactness
6.Halogen free,RoHS2.0 compliant

◆Applications

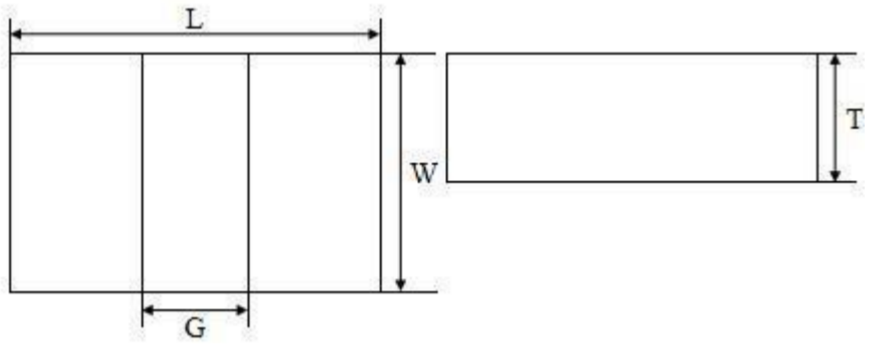
Telecomm base stations
Pad,Smartphone,Wi-Fi module
Portable gaming devices,Smart wear
Module power supply,Camera power manageme
Base band power supply,Amplifier
Automotive electronic equipment
AI eyeglass

◆Lead Free Part Numbering

SLO	0315	T	4R7	M	T	T
(1)	(2)	(3)	(4)	(5)	(6)	(7)

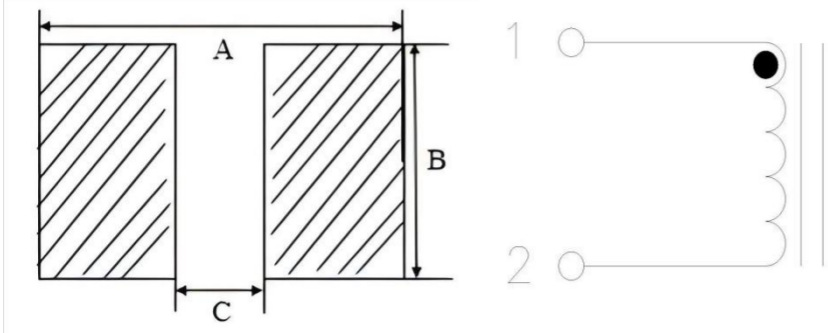
(1):Series Type
(2):Dimension
(3):Material Code
(4):Inductance:4R7=4.7uH
(5):Inductance Tolerance:M=±20%
(6):Company Code
(7):Packaging:Packed in embossed carrier tape

◆Dimensions



L	3.0±0.2
G	1.0Typ.
W	3.0±0.2
T	1.5 Max

◆Schematic Diagram



A	3.0 Typ
B	3.0 Typ
C	0.9 Typ

◆Specifications

Part No	Impedance (uH)	RDC (mΩ)		Heat Rating Current Irms(A)		Saturation Current Isat(A)	
	1MHz/1.0V	Typ	Max	Typ	Max	Typ	Max
SLO0315TR15MTT	0.15	5.0	6.0	12.0	11.0	16.0	15.0
SLO0315TR20MTT	0.2	4.8	5.9	13.0	12.0	16.0	15.0
SLO0315TR33MTT	0.33	6.5	8.5	14.0	13.0	12.0	11.0
SLO0315TR47MTT	0.47	9.0	11.0	9.0	8.0	10.0	9.0
SLO0315T1R0MTT	1.0	18.0	22.0	6.0	5.5	7.0	6.5
SLO0315T1R5MTT	1.5	22.0	26.0	8.0	7.5	6.0	5.5
SLO0315T2R2MTT	2.2	42.0	50.0	4.5	4.0	5.0	4.5
SLO0315T4R7MTT	4.7	87.0	104.0	3.5	3.0	4.0	3.5
SLO0315T6R8MTT	6.8	160.0	180.0	2.5	2.0	3.5	3.0
SLO0315T100MTT	10.0	185.0	215.0	1.5	2.8	2.8	2.5
SLO0315T220MTT	22.0	580.0	700.0	1.2	1.0	1.6	1.2

Notes

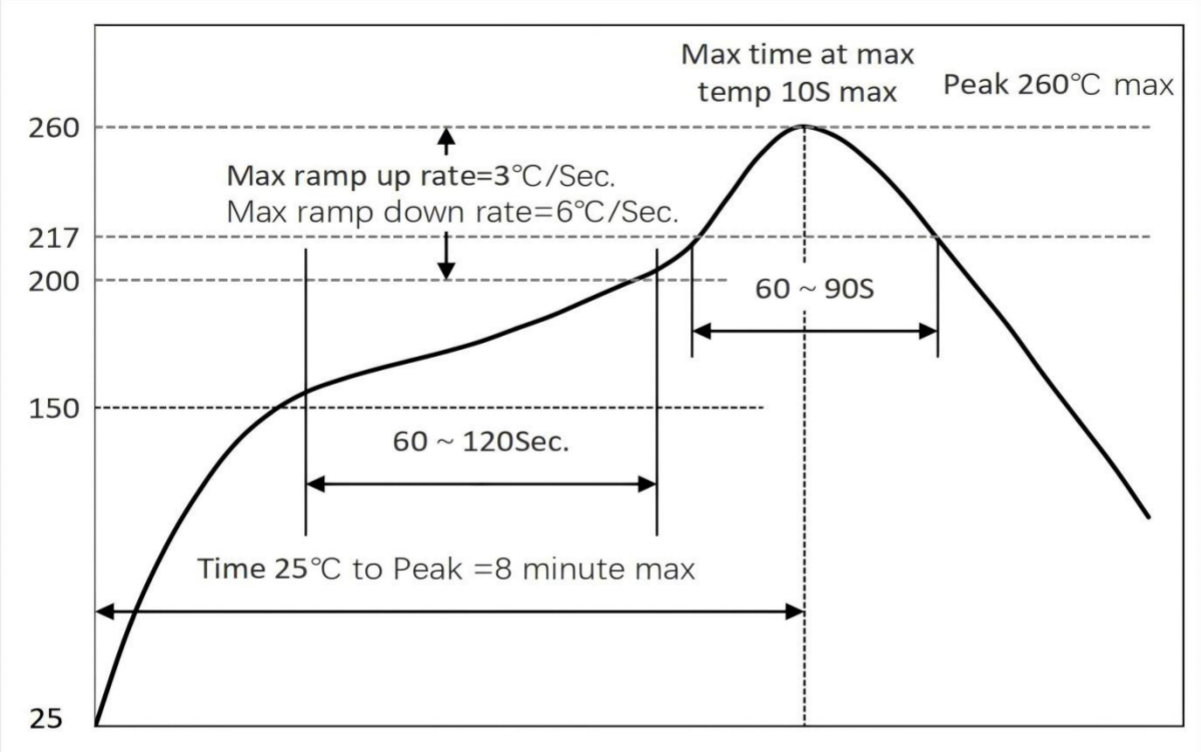
1:All test data is tested on 25 ℃ ambient temperature,Inductance is tested at 1MHz, 1.0V
2:Operating temperature range -55 ℃ to+ 125℃
3:Irms (A):DC current (A) that will cause an approximate △T of 40℃(reference ambient temperature is 25℃)
4:Isat(A):DC current (A) that will cause L0 to drop approximately 30 %.
5:Rated current: Isat or lrms, whichever is smaller
6:The part temperature (ambient +temp rise) should not exceed 125 C under worst case operating conditions. Circuit design, component placement, PWBtrace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

◆RELIABILITY

Item	Test Method
Terminal Strength test	The sample was welded to the substrate and subjected to a 17.7N thrust in both X and Y directions for 60 seconds,with no electrode detachment observed.
Solderability test	After preheat(150±10℃,120sec),then the specimen shall be immersed in flux at room temperature, Later be immersed in solder pot (245±5℃,10sec), take out and confirm the soldering state. Electrode has been covered by new solder more than 95%.
Shock test	According to the impact test machine,the impact acceleration is 981m/s2(100G)in three different directions, And the impact is applied three times in each direction(18timesintotal).The change rate of the inductance value Is within ±10% of the initial value.
Humidity test	After being stored for 96±4 hours in an environment with a temperature of 85±3℃ and a humidity of 80-85%,take it out and wipe off the water droplets with a dry cloth.After placing it at room temperature and Normal humidity for 1 hour,the change rate of the inductance value should be within ±10% of the initial value.
Low temperature storage test	Afte r96±4 hours storage at-55±3℃,the change rate of the inductance value at room temperature was within ±10% of the initial value.
High temperature storage test	After being stored in an environment with a temperature of 155±3℃ for 96±4hours,it is placed at room Temperature for 1-2hours.The change rate of the inductance value,when compared,should be within ±10% of the initial value.
Temperature cycle test	The sample was placed in the environment of-55±3℃ for 30 minutes,then transferred to the environment of 155±3℃ for 30 minutes,which was a cycle.After 100 cycles,the change rate of the inductance value was within ±10% of the initial value.

Recommended Soldering Conditions

Reflow profile for SMT components（Above reflow soldering curve is from J-STD-020D）



Package

Reel Dimension

A	B	C	Packing
330±2.0	100±2.0	13±2.0	3000PCS

