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321~339 TONGJI SOUTH ROAD
JIMEI, XIAMEN, CHINA
TEL:0592-6150333-153
FAX:0592-6150320

PRODUCT SPECIFICATION

	SPEC. NO. XCA-02049C	
SUNLORD - 希姆通	DATE: 2012.06.16	
CUSTOMER'S PT/NO.		
TDK PT/NO. SLF7040T-1R0M100-	T3PF	
THIS SPECIFICATION IS: FULLY ACCEPTED DENIED ACCEPTED UNDER THE FOLLOWING CONDITIONS		
SIGNATURE: NAME(PRINT): TITLE:	DATE:	_ _ _

COIL MFG. DEPARTMENT

FACTORY:

TDK XIAMEN CO ., LTD. 321~339 TONGJI SOUTH ROAD JIMEI, XIAMEN, CHINA

TEL: 0592-6150333-153 FAX: 0592-6151982

ESTABLISH AND DISUSE RECORD OF SPECIFICATION

TDK ITEM				VOA	000400
CUSTOMER ITEM			SPECIFICATION NO. XCA-0		02049C
EDITION	DATE	ESTA. AND DISU. CONTENT	ESTA. AND DISU. REASON		SPARE
A	2010. 02. 24	NEW PRODUCT			
В	2011. 07. 07	Electric Characteristic changed:Making a condition in the 100kHz/0.1V and 500kHz/0.1V of the Electric Characteristic	Customer Requ	est	
C	2012. 06. 16	change the direction of tape	Customer Requ	est	
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PRODUCT SPECI	FICATION	CUSTOMER: MESSRS.	
TDK PT/NO:	SPEC. NO.	CUSTOMER PT/NO:	2
SLF7040T-1R0M100-T3PF	XCA-02049C		

I . SCOPE:

This specification applies to the high current type SMD inductors for SLF7040T- $\bigcirc\bigcirc\bigcirc\bigcirc\triangle\triangle\triangle$ -T3PF

Π . INDEX:

	LISTED ITEM		ATTACHEMENT & TABLES	PAGE
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8. TANDARD TEST CONDITIONS

Unless otherwise specified, test condition should be Temp. = $20\pm15^{\circ}$ C, Humidity= $35\sim85\%$

But if needed, then test condition should be Temp. $=20\pm2^{\circ}\text{C}$,

Humidity = $65\pm5\%$

III. MANUFACTURING LOCATION

- 1) YANGMEI in TAIWAN
- 2) XIAMEN in CHINA

APPROVED BY

CONFIRMED BY

Ni Xianglone

CHECKED BY

MADE BY

I'm Tudhang

m/m

m/m

m/m

PRODUCT SPECIFICATION

CUSTOMER: MESSRS.

TDK PT/NO:

SPEC. NO.

XCA-02049C

CUSTOMER PT/NO:

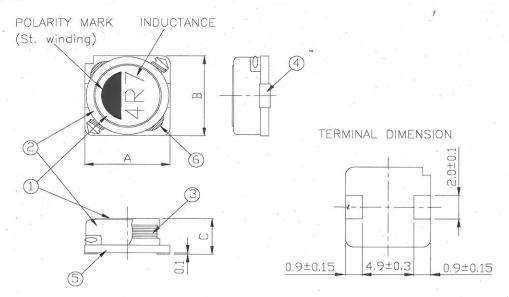
A: 7.0 ± 0.2

B: 7.0 ± 0.2

 $C: 4.0\pm0.2$

(1) SHAPES AND DIMENSIONS

SLF7040T-1R0M100-T3PF



(2) ELECTRICAL SPECIFICATIONS SEE TABLE 1

THE TANGETT OF THE

TEST INSTRUMENTS

L : HP 4284A PRECISION LCR METER (or equivalent) RDC : AD-5812 DIGITAL LOW-OHMMETER (or equivalent)

(3) CHARACTERISTICS

- (3)-1 Temperature rise +40°C Max.
- (3)-2 Ambient temperature $\dots +65^{\circ}$ C Max.
- (3)-3 Operate temperature range $-40^{\circ}\text{C} \sim +105^{\circ}\text{C}$ (Including self temp. rise)
- (3)-4 Storage temperature range $-40^{\circ}\text{C} \sim +105^{\circ}\text{C}$

MATERIALS

NO.	ITEM	DESCRIPTION & TYPE
1	DR CORE	FERRITE
2	RING CORE	FERRITE
3	WIRE	COPPER WIRE
4	TERMINAL	TINNED COPPER SHEET
5	BASE	PM9820
6	ADHESIVE	EPOXY RESIN
7	SOLDER	Sn-Cu

TABLE

	IND	UCTANCE at	100kHz/0.	1V	IND	JCTANCE at	500kHz/0.	1V		
		N	RATED DO	CURRENT		/	RATED DO	CURRENT		
TDK PT/NO.	L _{0A} (μH)	$L_{10A}(\mu H)$	Irat	(A)	$L_{0A}(\mu H)$	$L_{10A}(\mu H)$	Irat	(A)	RESISTANCE	MARKING
SLF7040T-	±20%	typ.	$IDC_1(A)$	IDC ₂ (A)	±23%	typ.	$IDC_1(A)$	IDC ₂ (A)	$RDC(m\Omega)$	34
1ROM100-T3PF	1.0	0.8	10.0	10.0	1.0	0.8	10.0	10.0	5.39±20%	1R0
·				2	8					
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	(F)			-n jt		, 10 B	7)			
				*				√* = 8		
		-					1540			
	50	15	= 10					(1.77	100	
									28	
				a = 1					34	

% IDC1: BASED ON INDUCTANCE CHANGE (\triangle L/Lo: \le -20%) IDC2: BASED ON TEMPERATURE RISE (\triangle T: 40°C TYP.) RATED DC CURRENT: THE LESS VALUE WHICH IS IDC1 OR IDC2

(4) ELECTRICAL SCHEMATICS



PRODUCT SPECI	FICATION	CUSTOMER: MESSRS.	22	: :	
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SLF7040T-1R0M100-T3PF	XCA-02049C				

(5) RELIABILITY TEST METHOD

MECHANICAL

TEST I	TEM	SPECIFICATION	TEST DETAILS
Substrate	bending	△L/Lo≦±5%	The sample shall be soldered onto the printed
			circuit board in figure 1 and a load applied
		There shall be	unitil the figure in the arrow direction is made
		no mechanical	approximately 3mm.
		damage or elec-	(keep time 3~5 seconds, speed: 0.5mm/sec)
		trical damege.	PCB dimension shall the page 7/9
			F(Pressurization)
			R5 45±2 45±2
		- E S	10 20
		4.	PRESSURE ROD R340
		<i>a</i>	figure-1
Vibration	-	△L/Lo≦±5%	The sample shall be soldered onto the printed
			circuit board and when a vibration having an
		There shall be	amplitude of 1.5mm and a frequency of from
		no mechanical	10 to 55Hz/1 minute repeated should be applied
		damage.	
		2 1	(A total of 6 hours)
Solderabil	ity	New solder	Flux (rosin, isopropyl alcohol{JIS-K-1522})
(M22)			shall be coated over the whole of the sample
		More than 90%	before hard, the sample shall then be preheated
		*	for about 2 minutes in a temperature of
		1) 25 ₆	130∼150°C and after it has been immersed to a
			depth 0.5mm below for 3±0.2 seconds fully in
			molten solder M22 with a temperature of
			245±2°C. More than 90% of the electrode sections
			shall be couered with new solder smoothly when
			the sample is taken out of the solder bath.

PRODUCT SPECIFICATION CUSTOMER: MESSRS. TDK PT/NO: SPEC. NO. CUSTOMER PT/NO: SLF7040T-1R0M100-T3PF XCA-02049C

MECHANICAL

MECHANICAL		
TEST ITEM	SPECIFICATION	TEST DETAILS
Resistance to	There shall be	Temperature profile of reflow soldering
Soldering heat	no damage or	
(reflow soldering)	problems.	soldering (Peak temperature 260±3°C,10secMAX)
		250
		Pre-heating 30 sec min 230°C Slow cooling (Stored at room temperature)
		Pre-heating Slow cooling
	N 20 20 20 20 20 20 20 20 20 20 20 20 20	(Stored at room temperature)
		S 50 → () () () ()
		1 to 2 min 10 sec. 2 min. or more
		The specimen shall be passed through the reflow
		oven with the condition shown in the above pro-
		file for 1 time.
	-1 ₂	The specimen shall be stored at standard atmosph-
* 1 1 x	,	eric conditions for 1 hour, after which the measu-
9 9 9 9		rement shall be made.

ELECTRICAL

TEST ITEM		SPECIFICATION
Insulation	There shall be	DC 100V voltage shall be applied across this sam-
resistance	no other	ple of top surface and the terminal.
	damage or	The insulation resistance shall be more than
80 1 1 1 1 1 1	problems.	$1 \times 10^8 \Omega$.
Dielectric	There shall be	AC 100V voltage shall be applied for 1 minute
withstand	no other	acrosset the top surface and the terminal of this
voltage	damage or	sample.(current:lmA)
9	problems.	
Temperature	△L/L20°C ≤±15%	The test shall be performed after the sample has
characteristics	0~2000 ppm/°C	stabilized in an ambient temperature of -40 to
		+85°C, and the value calculated based on the value
*-	× e	applicable in a normal temperature and narmal
	3	humidity shall be △L/L20°c ≤±15%.
		Measurement Equipments:
- F		HP IMPEDANCE ANALYZER (at 10 KHz)

PRODUCT SPECIFICATION

CUSTOMER: MESSRS.

CANADA PARAMA

TDK PT/NO:

SPEC. NO.

CUSTOMER PT/NO:

SLF7040T-1R0M100-T3PF

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ENVIROMENT CH TEST ITEM	SPECIFICATION	
		TEST DETAILS
High temperature	△L/Lo≦±5%	The sample shall be left for 96±4 hours in an
storage		atmospere with a temperature of 105±2°C and a nor
	There shall be	mal humidity. Upon completion of the measurement
	no mechanical	shall be made after the sample has been left in
	damage.	a normal temperature and normal humidity for 1
7	*	hour.
Low temperature	△L/Lo≦±5%	The sample shall be left for 96±4 hours in an
storage	20 TO 10 TO	atmosphere with a temperature of $-40\pm3^{\circ}\mathrm{C}$. Upon
4	There shall be	completion of the test, the measurement shall be
	no mechanical	made after the sample has been left in a normal
	damage.	temperature and normal humidity for 1 hour.
Change of	△L/Lo≦±5%	The sample shall be subject to 5 continuos cycles
temperature		such as shown in the table 2 below and then it
	There shall be	shall be subjected to standard stmospheric condi-
	no other dama-	tions for 1 hour, after which measurement shall
	ge of problems	be made.
		table 2
		Temperature Duration
	1	-40±3°C 30 min
	1 × 2 × 3	Themostat No.1) 30 min.
	1 0	2 Standard 5 sec. or less
	# (J) (25 g)	atmospheric No.1→No.2
		2 +105±2°C 20
		3 (Themostat No.2) 30 min.
		Standard 5 sec. or less
	- 1 × - ×	atmospheric No.2→No.1
Moisuture storage	$\triangle L/Lo \leq \pm 5\%$	The sample shall be left for 96±4 hours in a tem-
		perature of $40\pm2^{\circ}$ C and a humidity(RH) of $90\sim95\%$.
	There shall be	Upon completion of the test, the measurement shal
	no mechanical	be made after the sample has been left in a norma
3	damage.	temperature and normal humidity more than 1 hour.

Test conditions:

The sample shall be reflow soldered onto the printed circuit board in every test.

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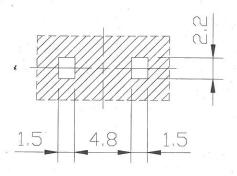
SLF7040T-1R0M100-T3PF

XCA-02049C

(6) LAND DIMENSION (Ref.)

PCB: GLASS EPOXY t = 1.6mm

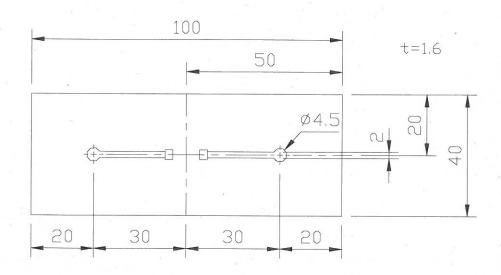
(6)-1 LAND PATTERN DIMENSIONS (STANDARD PATTERN)



Solder resist //////
Copper foil (0.035mm)

screen: $150 \,\mu\text{m}$ to $200 \,\mu\text{m}$

(6)-2 SUBSTRATE BENDING TEST BENDING TEST BOARD



PRODUCT SPECIFICATION

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SPEC. NO.

CUSTOMER PT/NO:

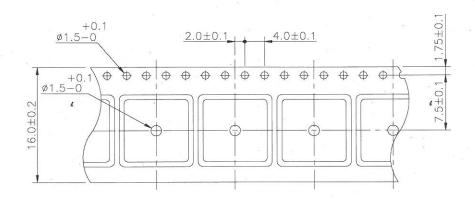
SLF7040T-1R0M100-T3PF

XCA-02049C

(7) PACKAGING

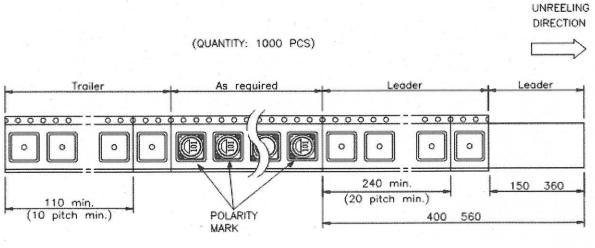
(PACKAGING FORMAT: EIAJ-RC-1009B)

(7)-1 CARRIER TAPE DIMENSIONS



CUMULATIVE
20 PITCH 80±0.15

(7)-2 TAPING DIMENSIONS

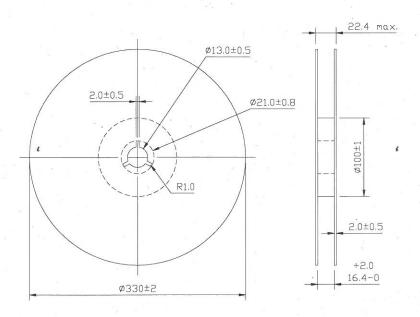


UNIT: mm

PRODUCT SPECIFICATION CUSTOMER: MESSRS. TDK PT/NO: SPEC. NO. CUSTOMER PT/NO: SLF7040T-1R0M100-T3PF XCA-02049C

(7)-3 REEL DIMENSIONS

(REEL DIMENSIONS: EIAJ-RC-1009B)



- (7)-4 QUANTITY 1000pcs/Reel
- (7)-5 OUTER BOX

5 Reel/Box

Box size: 350×350×130

(7)-6 MARKING

The following items shall be marked each unit pack.

Customer

- ☐ Insp. no.
- Customer pt/no.
- Date
- \square L(μ H) & To1.
- Lot no.
- ☐ TDK Item no.
- Quantity

- ☐ TDK pt/no.
- (7)-7 The products are packaged so that no damage will be sustained.

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