

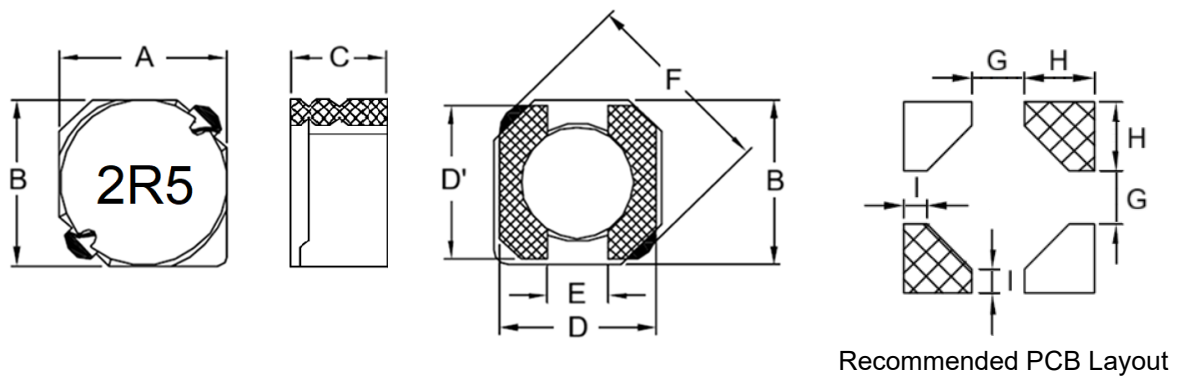
1. Part No. Expression

SSC05032R5YZF

(a) (b) (c) (d) (e) (f)

- | | |
|---------------------|--------------------|
| (a) Series Code | (d) Tolerance Code |
| (b) Dimension Code | (e) Special Code |
| (c) Inductance Code | (f) Packaging Code |

2. Configuration & Dimensions (Unit: mm)

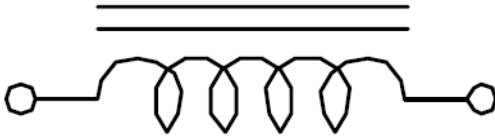


- Note: 1. The above PCB layout reference only.
2. Marking: Inductance Code

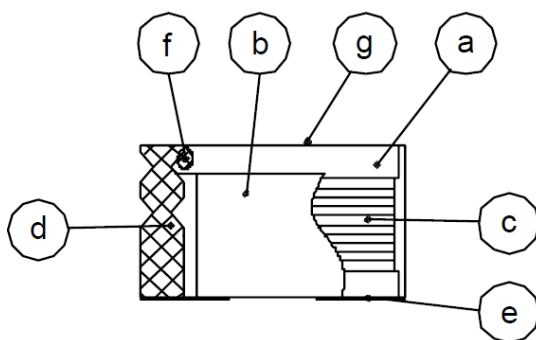
A	B	C	D	D'
5.70±0.30	5.70±0.30	3.00 Max	5.50 Ref	5.50 Ref
E	F	G	H	I
2.00 Ref	8.20 Max	2.20 Ref	2.05 Ref	0.85 Ref

NOTE: Specifications subject to change without notice. Please check our website for latest information.

3. Schematic



4. Material List



- (a) DR Core
- (b) RI Core
- (c) Wire
- (d) Terminal
- (e) Adhesive
- (f) Adhesive
- (g) Ink

5. General Specifications

- (a) Operating Temp.: -40°C to +95°C (including self-temperature rise)
- (b) All test data referenced to 25°C ambient.
- (c) Heat Rated Current (Irms) will cause the coil temperature rise ΔT of 30°C Max.
- (d) Saturation Current (Isat) will cause inductance L0 to drop 35% Max.
- (e) Rated Current: The lower value of Isat and Irms.
- (f) Resistance to solder heat: 260° C, 10 secs.
- (g) Storage Condition (Component in its packaging)
 - i) Temperature: -10°C to 40°C
 - ii) Humidity: Less than 60% RH

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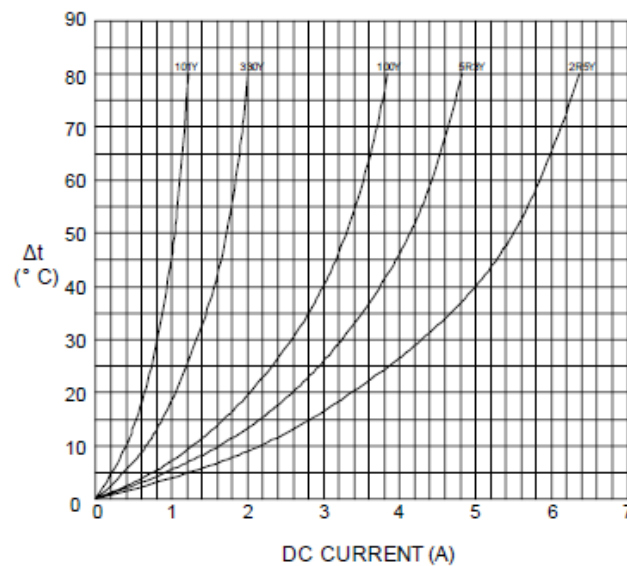
6. Electrical Characteristics

Part Number	Inductance (μ H) @0A $\pm 30\%$	Test Frequency	DCR (m Ω) Max	IDC (A) Max
SSC05032R5YZF	2.5	0.5V/10KHz	18	2.60
SSC05033R0YZF	3.0	0.5V/10KHz	24	2.40
SSC05034R2YZF	4.2	0.5V/10KHz	31	2.20
SSC05035R3YZF	5.3	0.5V/10KHz	38	1.90
SSC05036R2YZF	6.2	0.5V/10KHz	45	1.80
SSC05038R2YZF	8.2	0.5V/10KHz	53	1.60
SSC0503100YZF	10.0	0.5V/10KHz	65	1.30
SSC0503120YZF	12.0	0.5V/10KHz	76	1.20
SSC0503150YZF	15.0	0.5V/10KHz	103	1.10
SSC0503180YZF	18.0	0.5V/10KHz	110	1.00
SSC0503220YZF	22.0	0.5V/10KHz	122	0.90
SSC0503270YZF	27.0	0.5V/10KHz	175	0.85
SSC0503330YZF	33.0	0.5V/10KHz	189	0.75
SSC0503390YZF	39.0	0.5V/10KHz	212	0.70
SSC0503470YZF	47.0	0.5V/10KHz	250	0.62
SSC0503560YZF	56.0	0.5V/10KHz	305	0.58
SSC0503680YZF	68.0	0.5V/10KHz	355	0.52
SSC0503820YZF	82.0	0.5V/10KHz	463	0.46
SSC0503101YZF	100.0	0.5V/10KHz	520	0.42

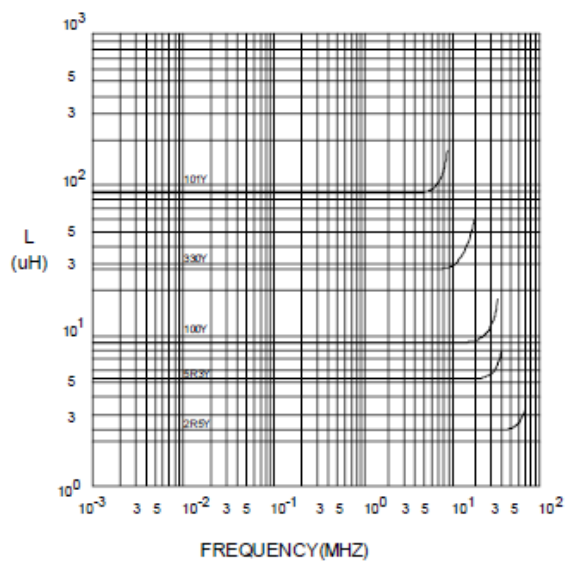
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7. Characteristics Curves

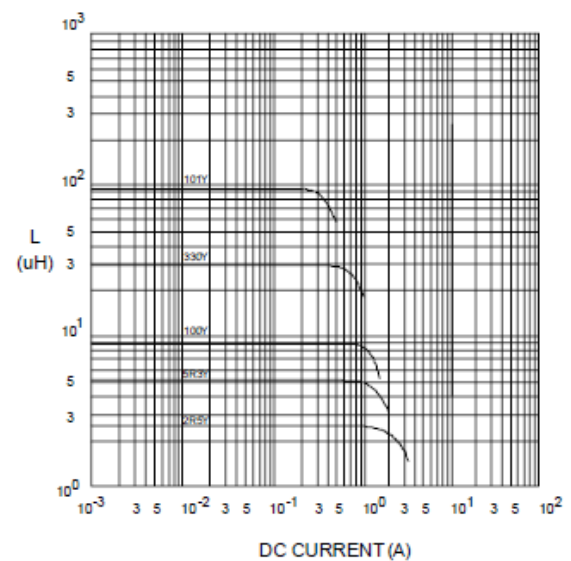
@ TEMP. RISE VS. DC SUPERPOSITION RESPONSE CURVE



@ INDUCTANCE VS. FREQUENCY RESPONSE CURVE



@ INDUCTANCE VS. DC SUPERPOSITION RESPONSE CURVE



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8. Soldering Specification

Mildly activated rosin fluxes are preferred. Our terminations are suitable for re-flow soldering systems. If hand soldering cannot be avoided, the preferred technique is the utilization of hot air soldering tools.

8-1. IR Soldering Reflow

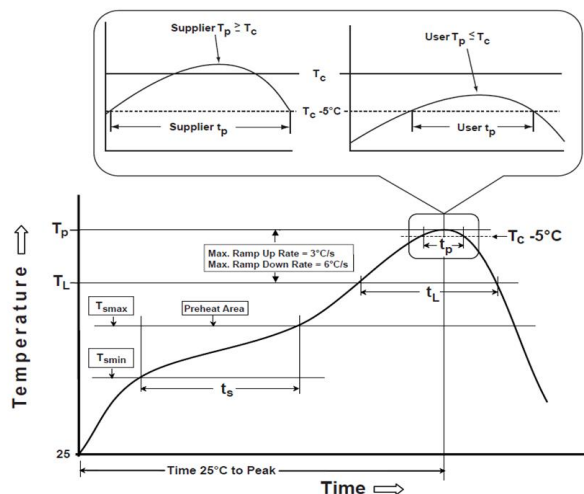
Recommended temperature profiles for lead free re-flow soldering in Figure 1, Table 1.1 & 1.2 (J-STD-020E).

8-2. Iron Reflow

Products attachment with a soldering iron is discouraged due to the inherent process control limitations. In the event that a soldering iron must be employed the following precautions are recommended (Figure 2).

Note:

- Preheat circuit and products to 150°C.
- 355°C tip temperature (Max.)
- Never contact the ceramic with the iron tip
- 1.0mm tip diameter (Max.)
- Use a 20 watt soldering iron with tip diameter of 1.0mm
- Limit soldering time to 4~5 sec.



Reflow times: 3 times Max

Figure 1: IR Soldering Reflow



Soldering iron method: 350±5°C Max

Figure 2: Iron soldering temperature profiles

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Table (1.1) Reflow Profiles

Profile Type:	Pb-Free Assembly
Preheat	
-Temperature Min (T_{smin})	150°C
-Temperature Max (T_{smax})	200°C
-Time (t_s) from (T_{smin} to T_{smax})	60-120seconds
Ramp-up rate (T_L to T_p)	3°C /second max.
Liquids temperature (T_L)	217°C
Time (t_L) maintained above T_L	60-150 seconds
Classification temperature (T_c)	See Table (1.2)
Time (t_p) at $T_c - 5^\circ\text{C}$ (T_p should be equal to or less than T_c .)	* < 30 seconds
Ramp-down rate (T_p to T_L)	6°C /second max.
Time 25°C to peak temperature	8 minutes max.

T_p: maximum peak package body temperature, **T_c**: the classification temperature.

For user (customer) **T_p** should be equal to or less than **T_c**.

*Tolerance for peak profile temperature (T_p) is defined as a supplier minimum and a user maximum.

Table (1.2) Package Thickness/Volume and Classification Temperature (T_c)

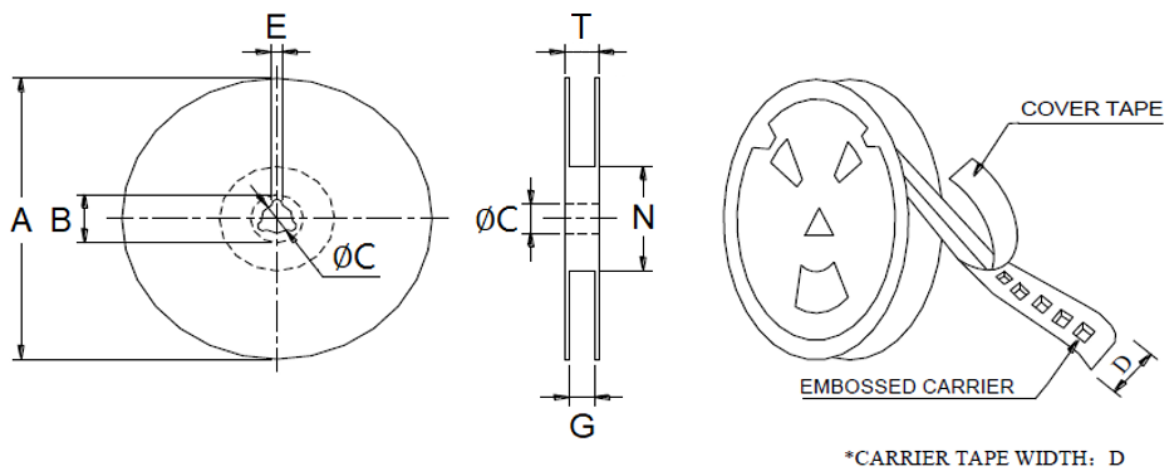
	Package Thickness	Volume mm ³ <350	Volume mm ³ 350-2000	Volume mm ³ >2000
PB-Free Assembly	<1.6mm	260°C	260°C	260°C
	1.6-2.5mm	260°C	250°C	245°C
	≥2.5mm	250°C	245°C	245°C

Reflow is referred to standard IPC/JEDEC J-STD-020E.

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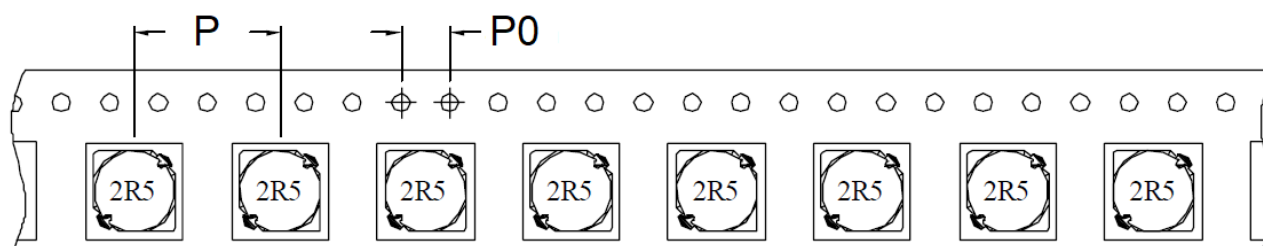
9. Packaging Information

9-1. Reel Dimension (Unit: mm)



Type	A	B	C	D	E	G	N	T
13"x16mm	330.0 Ref	21.0 Ref	13.0 Ref	16.0 Ref	2.0 Ref	18.0 Max	50.0 Min	22.4 Ref

9-2. Tape Dimension (Unit: mm)



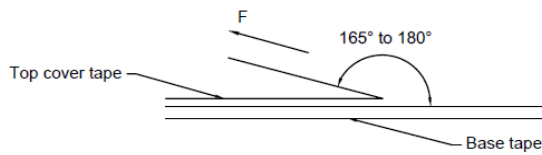
P	P0
12	4

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9-3. Packaging Quantity (Unit: Pcs)

INNER : REEL			OUTER : CARTON		
QTY(PCS)	G.W(gw)	STYLE	QTY(PCS)	G.W.(Kg)	SIZE(cm)
1,500	1,800	13-16	9,000	14.3	40 x 40 x 24

9-4. Tearing Off Force



The force for tearing off cover tape is according to the follow table, in the arrow direction under the following conditions.

(Referenced ANSI/EIA-481-D-2008 of 4.11 standard)

Room Temp. (°C)	Room Humidity (%)	Room atm (hPa)	Tearing Speed (mm/min)
5~35	45~85	860~1060	300±10

Tape Size	8 mm	12 to 56 mm	72 mm or Wider
Tearing Off Force (grams)	10~100	10~130	10~150

Application Notice

1. Storage Conditions

To maintain the solderability of terminal electrodes:

- (a) Recommended products should be used within 12 months from the time of delivery.
- (b) The packaging material should be kept where no chlorine or sulfur exists in the air.

2. Transportation

- (a) Products should be handled with care to avoid damage or contamination from perspiration and skin oils.
- (b) Vacuum pick up is strongly recommended for individual components.
- (c) Bulk handling should ensure that abrasion and mechanical shock are minimized.

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