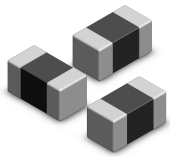
SOCAY

Chip Ferrite Bead

SCGB1005-B Series

Features

- Monolithic inorganic material construction
- Closed magnetic circuit avoids crosstalk
- SMD Type & suitable for reflow and wave soldering
- Available in various sizes
- Excellent solderability and heat resistance
- High reliability
- With a sharp and frequency impedance characteristics which can effectively filter high frequency noise without attenuating high frequency signal



Applications

Filtering between analog and digital circuitry, clock generation circuitry, I/O interconnects, isolation between RF noisy circuits and logic devices susceptible to functional degradation, power supply filtering to prevent conducted RF energy from corrupting the power generation circuitry. Sharp impedance characteristics can effectively minimize attenuation, high frequency EMI prevention of LCD monitor, PDA, Computers, Computer peripherals, Cellular Equipment, Digital TV, Digital Cameras, Audio/Visual Equipment, DVD, Wireless Communication Devices, MP3.

General Technical Data

Operating temperature range	-40 ~ +125°C
Storage Condition	Less than 40℃ and 70% RH
Storage Time	6 months Max.
Soldering method	Reflow or Wave Soldering

Part Numbering

SCGB	**1005**	**B**	**60**	**1**	**E**	**P**	**F**
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

1 Series Name
2 Size Code: the first two digitals : length(mm), the last two digitals : width(mm)
3 Material Code
4 Impedance(Ω), ±25%
5 Fixed Decimal Point ┐ e.g.: 600=60 Ω, 121=120Ω
6 Rated Current Cod

A=50mA	B=80mA	C=100mA	D=150mA	E=200mA	F=300mA
G=400mA	H=500mA	I=600mA	J=700mA	K=800mA	

7 Packaging: P - Embossed paper tape, 7" reel
T - Embossed plastic tape, 7" reel
8 Soldering : Green Parts: S - Soldering Lead-Free F - Lead-Free for whole chip

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Chip Ferrite Bead

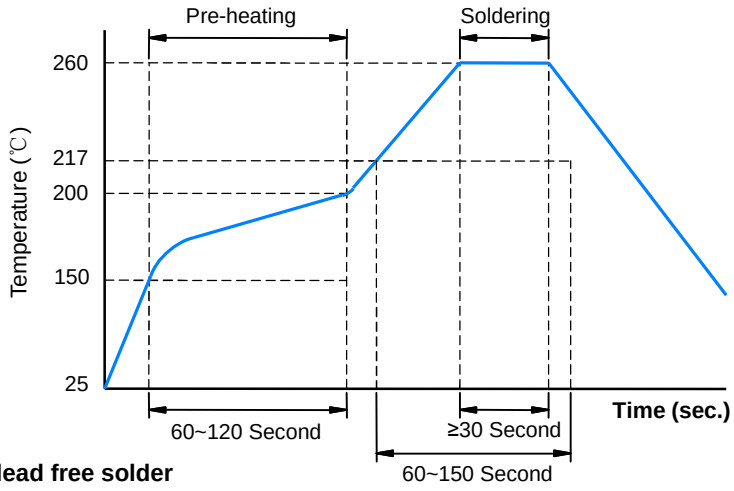
SCGB1005-B Series

Electrical Characteristics

Part Number	Impedance (Ω) ±25%	Test Freq. (MHz)	DCR (Ω) (Max.)	Rated Current (mA)
SCGB1005B601FPF	600	100	0.60	300
SCGB1005B102EPF	1000	100	1.00	200
SCGB1005B152DPF	1500	100	1.50	150
	Test Level：250 mV			
Test Instruments：	l HP4291B RF IMPEDANCE / MATERIAL ANALYZER l HP4338A/B MILLIOHM METER l Agilent 8720ES S-PARAMETER NETWORK ANALYZER l HP6632B SYSTEM DC POWER SUPPLY			

** For special part number which is not shown in the above table, please refer to appendix.

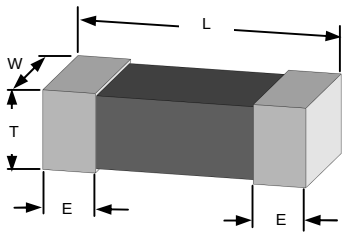
Recommended Soldering Conditions



For lead free solder

Construction & Dimensions

Unit: mm



Symbol	1005 (EIA 0402)
L	1.00±0.10
W	0.50±0.10
T	0.50±0.10
E	0.25±0.10

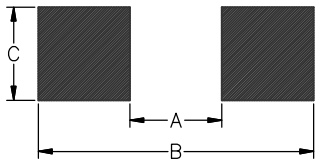
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Chip Ferrite Bead

SCGB1005-B Series

Recommended Pad Layout

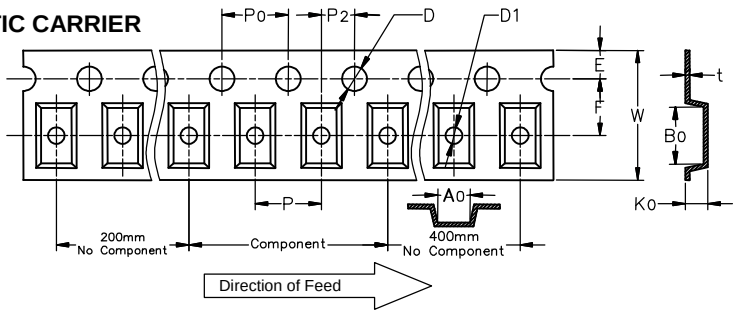
Unit: mm



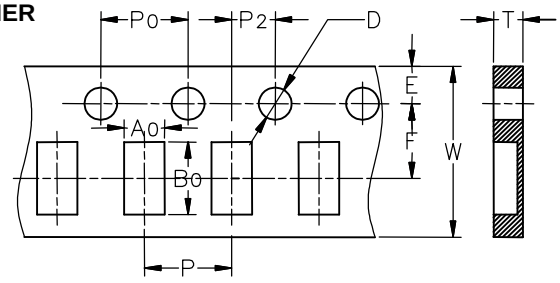
Size	A	B	C
1005	0.40~0.60	1.60~2.60	0.40~0.70

Tape Specifications

PLASTIC CARRIER

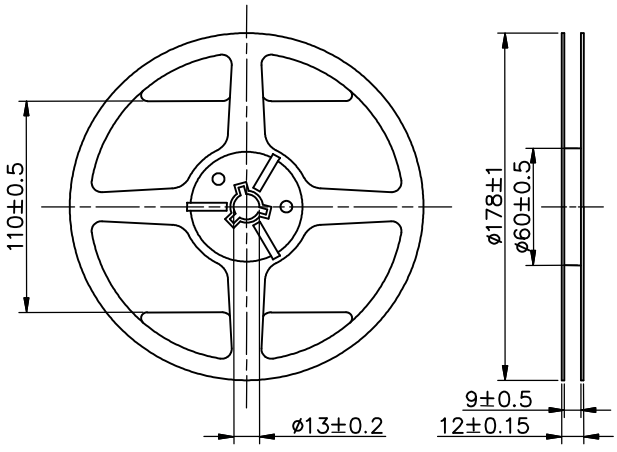


PAPER CARRIER



Symbol	1005
	Paper
W	8.00±0.10
P	2.00±0.05
E	1.75±0.05
F	3.50±0.05
D	1.55±0.05
D1	NA
P	4.00±0.10
$P_0$10	NA
P2	2.00±0.05
A0	0.62±0.03
B0	1.12±0.03
K0(T)	0.60±0.03
t	NA

Reel Specifications & Packaging



Part Size(EIA Size)	Packaging Option	Quantity
1005 (0402)	7″Reel	10,000

The Contents of a box:
1005 (0402): 6 reels / inner box

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Chip Ferrite Bead

SCGB1005-B Series

Reliability and Test Condition

Test item	Test condition	Criteria
Temperature Cycle	a. Temperature : -40 ~ +85℃ b. Cycle : 100 cycles c. Dwell time : 30minutes Measurement : at ambient temperature 24 hrs after test completion	a. No mechanical damage b. Induction value should be within ±20 % of the initial value
Operational Life	a. Temperature : 125℃±5℃ b. Test time : 1000 hrs c. Apply current : full rated current Measurement : at ambient temperature 24 hrs after test completion	a. No mechanical damage b. Induction value should be within ±20 % of the initial value
Biased Humidity	a. Temperature : 40℃±2℃ b. Humidity : 90 ~ 95 % RH c. Test time : 1000 hrs d. Apply current : full rated current Measurement : at ambient temperature 24 hrs after test completion	a. No mechanical damage b. Induction value should be within ±20 % of the initial value
Resistance to Solder Heat	a. Solder temperature : 260±5℃ b. Flux : Rosin c. DIP time : 10±1 sec	a. More than 95 % of terminal electrode should be covered with new solder b. No mechanical damage c. Induction value should be within ±20 % of the initial value
Adhesive Test	a. Reflow temperature : 245℃ It shall be Soldered on the substrate applying direction parallel to the substrate b. Apply force(F) : 5 N Test time : 10 sec	a. No mechanical damage b. Soldering the products on PCB after the pulling test force > 5 N
Rated Current Test	a. Apply current : full rated current / 5min	Temperature rise should be less than 25℃
Steam Aging Test	a. Temperature : 93℃ b. Test time : 4hrs Others: 8hrs c. Solder temperature : 235±5℃ d. Flux : Rosin e. DIP time : 5±1 sec	More than 95 % of terminal electrode should be covered with new solder

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