

Fixed High-Frequency Inductors

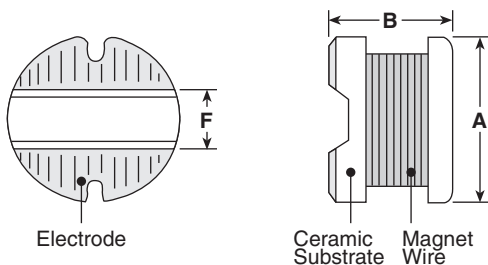
Type SDR 0604 (SMD Power Chokes)

ISO 9001:2000
CERTIFIED
TS-16949
CERTIFIED

1. Scope

This specification applies to SMD type choke coil SDR0604 produced by KOA Speer Electronics, Inc.

2. Dimensions & Construction



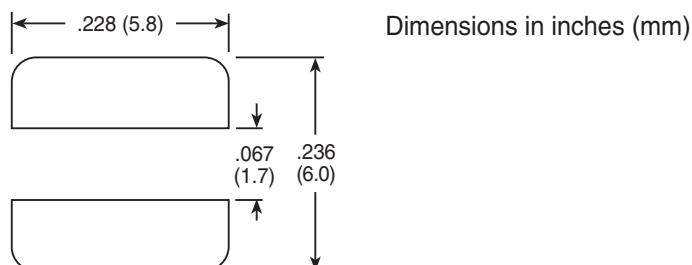
Size	Dimensions inches (mm)		
	A	B	F (typ.)
0604	.220±.008 (5.6±0.2)	.177±.012 (4.5±0.3)	.071 (1.8)

3. Type Designation

Type designation shall be as the following form.

SDR	0604	T	TEB	100	M
Type	Size	Termination Material	Packaging	Nominal Inductance	Tolerance
	0604	T: Sn (Other termination styles available, contact factory for options)	TEB: 13" Embossed Plastic (0604: 1,500 pieces/reel)	100: 10μH 101: 100μH	K: ±10% M: ±20% Y: ±15%

4. PCB Pattern



5. Applications & Ratings

Part Designation	Nominal Inductance L (μH) @ 1KHz	Inductance Tolerance	DC Resistance Maximum (Ω)	Allowable DC Current Maximum (Amps)	Operating Temperature Range	Storage Temperature Range
SDR0604TTEB3R3M	3.3	M: ±20%	0.06	2.0	-40°C to +85°C	-40°C to +125°C
SDR0604TTEB3R9M	3.9		0.07	1.9		
SDR0604TTEB4R7M	4.7		0.07	1.8		
SDR0604TTEB5R6M	5.6		0.08	1.7		
SDR0604TTEB6R8M	6.8		0.08	1.6		
SDR0604TTEB8R2M	8.2		0.09	1.5		
SDR0604TTEB100M	10		0.10	1.45		
SDR0604TTEB120M	12		0.12	1.4		
SDR0604TTEB150Y	15	Y: ±15%	0.14	1.3		
SDR0604TTEB180Y	18		0.15	1.25		
SDR0604TTEB220Y	22		0.19	1.1		
SDR0604TTEB270Y	27		0.22	1.0		
SDR0604TTEB330K	33	K: ±10%	0.25	0.88		
SDR0604TTEB390K	39		0.32	0.80		
SDR0604TTEB470K	47		0.37	0.72		
SDR0604TTEB560K	56		0.42	0.68		
SDR0604TTEB680K	68		0.52	0.62		
SDR0604TTEB820K	82		0.60	0.58		
SDR0604TTEB101K	100		0.70	0.52		
SDR0604TTEB121K	120		0.93	0.48		
SDR0604TTEB151K	150		1.10	0.40		
SDR0604TTEB181K	180		1.38	0.38		
SDR0604TTEB221K	220		1.57	0.35		

6. Mechanical Performance

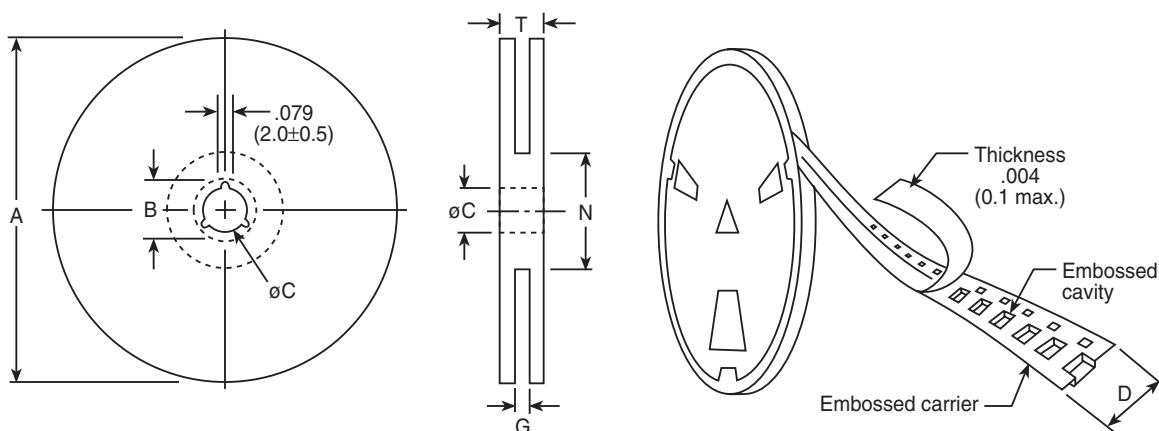
Item	Performance	Test Method (JIS C 5321)
Resistance to Vibration	Change of Inductance: $\pm 5\%$	To put the sample on paper phenolic resin laminate base and to vibrate at the frequency of 10-55-10 Hz for each X, Y, Z direction for 2 hours and to sweep it at a full vibration width .059" (1.5mm) for 1 minute.
Resistance to Soldering	No remarkable visual damage	To immerse into Solder bath of 260 ± 5 °C for 10 ± 1 seconds.
Solderability	The electrode shall be covered with new solder	To immerse for 3 ± 0.5 seconds at 235 ± 5 °C

7. Environmental Tests

Item	Performance	Test Method (JIS C 5321)
Resistance to Cold	Change of Inductance: $\pm 10\%$	To leave in a bath at -40 ± 2 °C for 1,000 hours.
Temperature Cycling	Change of Inductance: $\pm 10\%$	To keep at $-25^{\circ}\text{C} \sim 85^{\circ}\text{C}$ for 30 minutes in 5 cycles and leave for 10 ~ 15 minutes in normal temperature at the time of transition between low temperatures and high temperatures
Resistance to Heat	Change of Inductance: $\pm 10\%$	To leave in a bath at 85 ± 2 °C for 2 hours. (Resistance to heat of Ferrite Core: 120°C)
T. C. R	Change of Inductance: $\pm 5\%$	20°C shall be standard and change of inductance shall be measured at $-25^{\circ}\text{C} \sim 85^{\circ}\text{C}$.
Resistance to Damp (Steady State)	Change of Inductance: $\pm 10\%$	Temperature: 60 ± 2 °C Humidity: 90 ~ 95% Test hours: 1,000 hours
Endurance (Under Damp and Load)	Change of Inductance: $\pm 10\%$	Temperature: 40 ± 2 °C Humidity: 90 ~ 95% To supply allowable current for 1,000 hours continually
Endurance (Under high Temperature)	Change of Inductance: $\pm 10\%$	Temperature: 85 ± 2 °C To supply allowable current for 1,000 hours

8. Packaging

Carrier Tape Reels



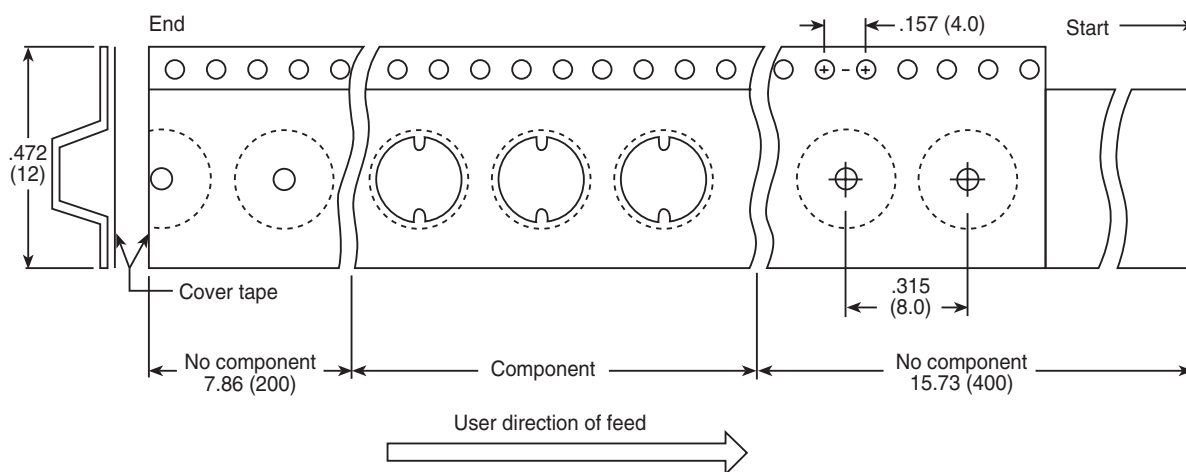
Materials:

Paper Plastics

Dimensions in inches (mm)

Type	A	B	C	D	G	N	T
0604	12.99 (330)	.512 (12 ± 0.5)	.512 (13 ± 0.5)	.472 (12)	.551 (14 max)	1.97 (50 min)	.724 (18.4)

* SDR0604: 1,500 Pieces/Reel



** Strength of cover tape: The force for tearing off cover tape is 10 to 130 grams in the arrow direction.

