

Higher SRF than our other power inductors

High inductance with tight tolerance

Excellent current handling for a part this size

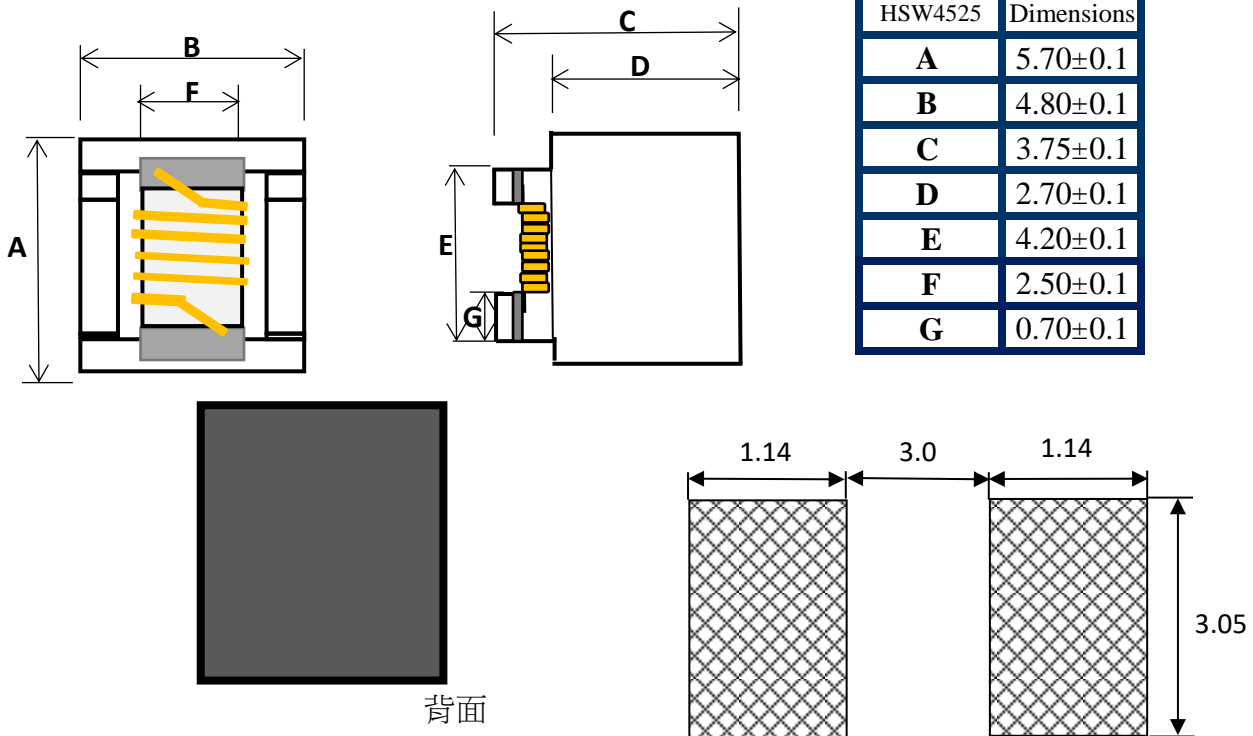
AEC-Q200 Grade 2 (-40°C to +105°C)

HSW4525

HSW4525

[1812 inch]

◆ SHAPE & DIMENSIONS



產品單顆重量 : 0.0346g

PAD Layout

◆ PART NUMBER CONSTRUCTION

HSW	4525	-	220	K	T
Series name	L*W*T Dimensions (mm)		Inductance (uH) at 1MHz	Tolerance	Taping
High SRF/Q SMD WireWound Inductor	4.5*2.7*2.5		22	±10%	

◆ OPERATING TEMPERATURE RANGE, PACKAGE QUANTITY.

Type	Temperature range		Reel Dimensions (mm)
	Operating Temperature ℃	Storage Temperature ℃	
HSW4525-Series	-40 to +125	-40 to +125	ø180



◆ ELECTRICAL CHARACTERISTICS

Inductance uH ±10% 【100KHz 0.1V】	Tolerance J/K %	Q 1MHz min.	DC Resistance (Ω) max.	SRF (MHz) min	Isat (mA)	Irms (mA)	P/N
1.0	5,10	30	0.070	320	3100	2950	HSW4525-1R0□T
1.2	5,10	35	0.110	280	2800	2600	HSW4525-1R2□T
1.5	5,10	20	0.105	200	2100	2850	HSW4525-1R5□T
2.2	5,10	30	0.120	175	1800	2700	HSW4525-2R2□T
2.4	5,10	25	0.175	160	1900	2050	HSW4525-2R4□T
2.7	5,10	30	0.200	165	1400	2100	HSW4525-2R7□T
3.3	5,10	33	0.185	160	1400	1900	HSW4525-3R3□T
3.9	5,10	32	0.195	145	1300	1700	HSW4525-3R9□T
4.7	5,10	28	0.150	125	1000	1800	HSW4525-4R7□T
5.6	5,10	35	0.400	110	1000	1650	HSW4525-5R6□T
6.8	5,10	35	0.350	110	850	1450	HSW4525-6R8□T
10	5,10	35	0.550	90	710	1400	HSW4525-100□T
15	5,10	40	0.750	75	680	1150	HSW4525-150□T
22	5,10	45	0.850	15	600	855	HSW4525-220□T
33	5,10	45	1.1	10	540	820	HSW4525-330□T
39	5,10	45	1.1	9.8	500	710	HSW4525-390□T
47	5,10	45	1.2	8.0	390	645	HSW4525-470□T
68	5,10	45	1.8	14.2	260	650	HSW4525-680□T
100	5,10	45	2.5	4.5	260	520	HSW4525-101□T
150	5,10	40	3.8	3.4	220	475	HSW4525-151□T
220	5,10	45	5.4	3.0	180	390	HSW4525-221□T
270	5,10	35	6.5	2.0	150	350	HSW4525-271□T
330	5,10	45	6.8	3.0	150	310	HSW4525-331□T
390	5,10	35	7.6	2.6	140	310	HSW4525-391□T
470	5,10	35	8.7	2.1	130	280	HSW4525-471□T
560	5,10	20	11.2	1.6	110	280	HSW4525-561□T
680	5,10	25	12.7	1.9	100	250	HSW4525-681□T
820	5,10	25	16.8	1.45	90	210	HSW4525-821□T
1000	5,10	30	19.5	1.68	90	160	HSW4525-102□T

※Ambient temp -40 to 105 °C with (40°C rise) I rms current..

◆ Measurement Equipment

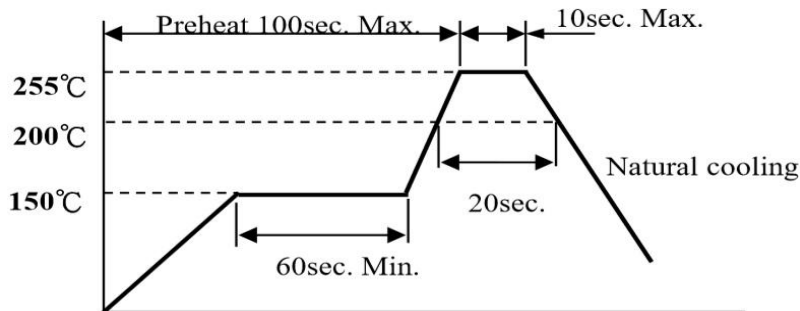
Measurement Item	Meter	Manufacturer
Inductance	4263B	Agilent
DC Resistance	16502	Chroma
SRF	4287A	Agilent
Q	4287A	Agilent

RELIABILITY

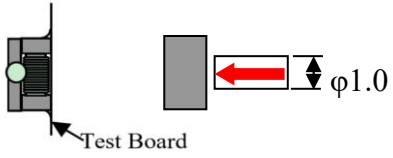


◆ RECOMMENDED REFLOW PROFILE

2019/10/21



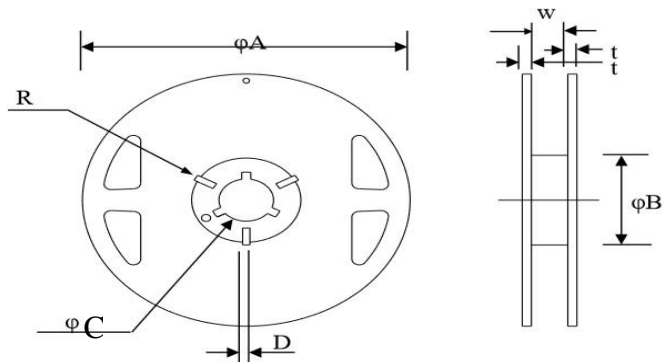
◆ MECHANICAL RELIABILITY

TEST ITEM	Specification & Requirement		Method Used
Solderability	The surface of terminal/pin tested shall be covered with new solder by 90%		Solder heat proof: Preheating: 150 ± 10°C 60 seconds Soldering: 245 ± 5°C for 4 ± 1 sec
Solder Heat Resistance	Components should have not evidence of Impedance: within ± 15% of initial value		Preheating: 150°C 60secs Flux: rosin Dip time: 10 ± 0.5 secs
Terminal strength	Series No.	F (Kg)	Solder a chip to test substrate and then laterally apply a force in the arrow direction 
	2012	1.0	
	2520	1.0	
	3216	1.0	
	3225	1.0	
	4532	1.2	

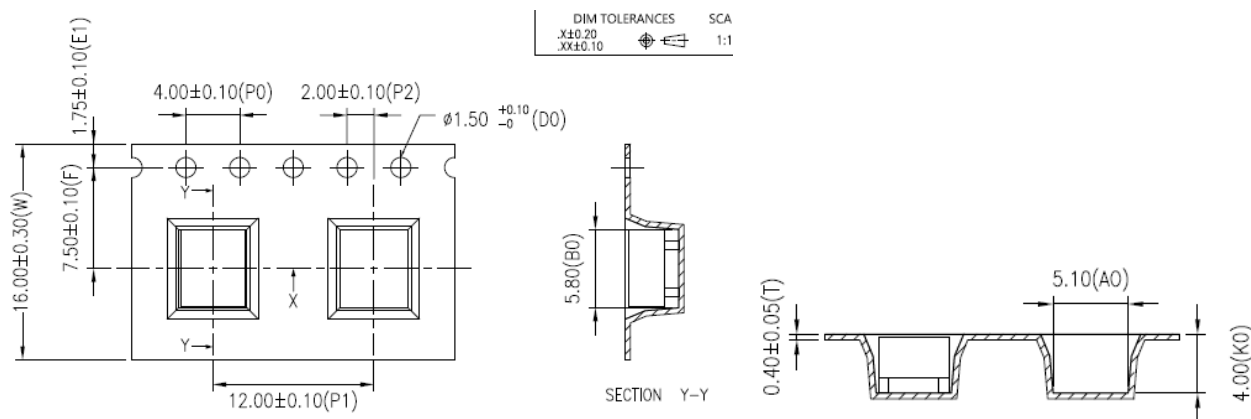
ENDURANCE RELIABILITY

Thermal Shock	Impedance change within ± 15% Without mechanical damage	-65°C, (30 mins) -> room temp. (2 mins) 125°C, (30 mins) -> room temp. (2 mins) 50 cycles
Humidity Resistance		Apply IDC current @ 60°C ambient Humidity: 90% Duration: 168 hrs
Low Temp. Storing		Storing Temp. -40 ± 2 °C for total 168 +5/-0 hours
High Temp. Storing		Storing Temp. 145 ± 2 °C for total 168 +5/-0 hours

◆ Reel Dimension & Tape Dimension



Type	A(mm)	B(mm)	C(mm)	W(mm)
7"x12mm	178±1	60±1	13.3±0.5	13.7±0.5



Size	Ao(mm)	Bo(mm)	Ko(mm)	W(mm)	E(mm)	F(mm)	Po(mm)	P(mm)	P2(mm)	Do(mm)
4525	5.10±0.1	5.80±0.1	4.00±0.1	16.00±0.3	1.75±0.1	7.50±0.1	4.00±0.1	12.00±0.1	2.00±0.1	1.50+0.1/-0

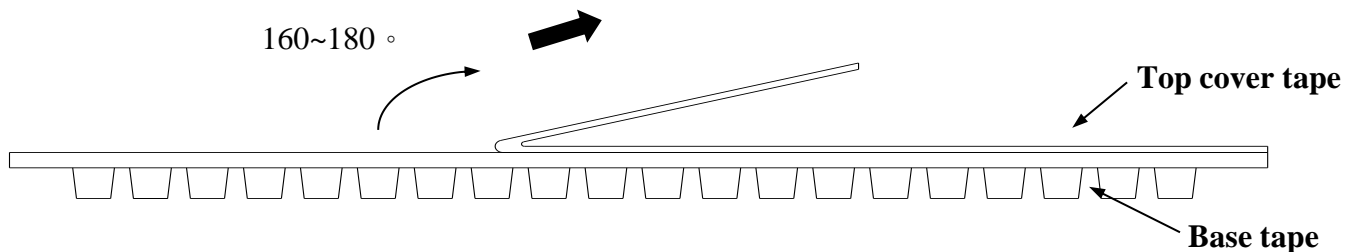
◆ Cover Tape Peel Strength

The force for tearing off cover tape is 0.05~0.69(N) in the arrow direction at the following conditions:

Temperature : 5 ~ 35°C

Humidity : 45 ~ 85%

Atmospheric pressure : 860 ~ 1060 hpa



◆ Packaging Quantity

Chip Size	4525
Reel	750pcs