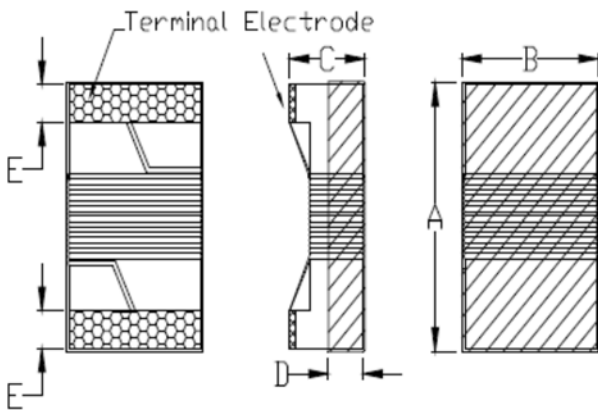


FEATRLRES

- Monolithic inorganic material construction.
- Closed magnetic circuit avoids crosstalk.
- S.M.T. type.
- Suitable for reflow soldering.
- Shapes and dimensions follow E.I.A. spec.
- Available in various sizes.
- Excellent solder ability and heat resistance.
- High reliability.
- 100% Lead(Pb) & Halogen-Free and RoHS compliant.

CONFIGLRATIONS & DIMENSIONS (unit in mm)



Size	A	B	C	D	E
SWF3225	3.6max	2.8max	2.6max	0.8ref.	0.55±0.1

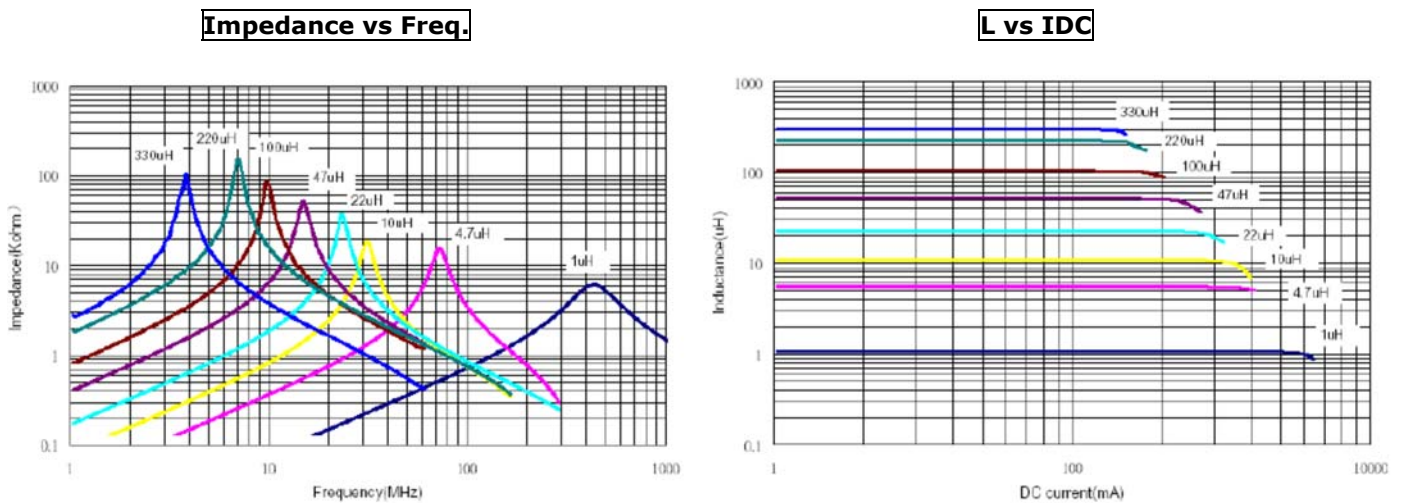
ELECTRICAL CHARACTERISTICS

Part Number	Inductance (uH)	Tolerance	Test Frequency (Hz)	Q min.	Test Frequency (MHz)	Rated Current(mA)	DCR(Ω) max.	SRF
								(MHz)min.
SWF3225CF-1R0K	1.00±10%	K,M	0.5V/7.96M	10	7.96	1200	0.12	290
SWF3225CF-1R5K	1.50±10%	K,M	0.5V/7.96M	10	7.96	1000	0.13	260
SWF3225CF-2R2K	2.20±10%	K,M	0.5V/7.96M	10	7.96	880	0.17	190
SWF3225CF-3R3K	3.30±10%	K,M	0.5V/7.96M	10	7.96	775	0.22	64
SWF3225CF-4R7K	4.70±10%	K,M	0.5V/7.96M	10	7.96	710	0.26	54
SWF3225CF-6R8K	6.80±10%	K,M	0.5V/7.96M	10	7.96	660	0.30	34
SWF3225CF-100K	10.0±10%	K,M	0.5V/2.52M	10	2.52	570	0.39	25
SWF3225CF-150K	15.0±10%	K,M	0.5V/2.52M	10	2.52	440	0.66	17
SWF3225CF-220K	22.0±10%	K,M	0.5V/2.52M	10	2.52	400	0.82	16
SWF3225CF-330K	33.0±10%	K,M	0.5V/2.52M	10	2.52	285	1.50	12
SWF3225CF-390K	39.0±10%	K,M	0.5V/2.52M	10	2.52	270	1.66	12
SWF3225CF-470K	47.0±10%	K,M	0.5V/2.52M	10	2.52	260	1.90	10
SWF3225CF-680K	68.0±10%	K,M	0.5V/2.52M	10	2.52	235	2.29	9.0
SWF3225CF-101K	100±10%	K,M	0.5V/1M	10	1.00	190	3.48	7.0
SWF3225CF-151K	150±10%	K,M	0.5V/1M	10	1.00	140	6.55	5.0

SWF3225CF-221K	220±10%	K,M	0.5V/1M	10	1.00	115	8.23	4.0
SWF3225CF-331K	330±10%	K,M	0.5V/1M	10	1.00	98	13.7	2.8
SWF3225CF-471K	470±10%	K,M	0.5V/1M	10	1.00	86	18.1	2.6
SWF3225CF-681K	680±10%	K,M	0.5V/1M	10	1.00	76	22.0	2.3

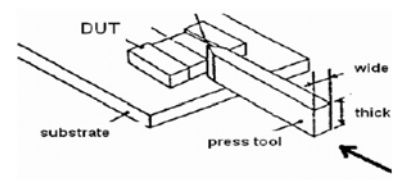
- NOTE: K=±10%,L=±15%,M=±20%
- Rated current: based on temperature rise test
- In compliance with EIA 595

Impedance vs Frequency,DC Bias Characteristics(Typical)



Reliability and Test Condition

Item	Performance	Test Condition
Operating temperature	-40~+125℃ (Including self - temperature rise)	
Storage temperature	1. -10~+40℃,50~60%RH (Product with taping) 2. -40~+125℃ (on board)	
Electrical Performance Test		
Inductance	Refer to standard electrical characteristics list.	HP4284A,CH11025,CH3302,CH1320,CH1320S LCR Meter.
DCR		CH16502,Agilent33420A Micro-Ohm Meter.
Saturation Current (Isat)	Approximately△L30%	Saturation DC Current (Isat) will cause L0 to drop △L(%)
Heat Rated Current (Irms)	Approximately △T40℃	Heat Rated Current (Irms) will cause the coil temperature rise △T(℃). 1.Applied the allowed DC current 2.Temperature measured by digital surface thermometer
Reliability Test		
Life Test	Appearance : No damage.	Preconditioning: Run through IR reflow for 2 times.(IPC/JEDEC J-STD-020DClassification Reflow Profiles) Temperature : 125±2℃ (Inductor) Applied current : rated current Duration : 1000±12hrs Measured at room temperature after placing for 24±2 hrs

Load Humidity	Inductance : within±10% of initial value Q : Shall not exceed the specification value. RDC : within ±15% of initial value and shall not exceed the specification value	Preconditioning: Run through IR reflow for 2 times.(IPC/JEDEC J-STD-020DClassification Reflow Profiles Humidity : 85±2 * R.H, Temperature : 85°C±2°C Duration : 1000hrs Min. with 100% rated current Measured at room temperature after placing for 24±2 hrs															
Moisture Resistance		Preconditioning: Run through IR reflow for 2 times.(IPC/JEDEC J-STD-020DClassification Reflow Profiles Profiles 1. Baked at50°C for 25hrs, measured at room temperature after placing for 4 hrs. 2. Raise temperature to 65±2°C 90-100%RH in 2.5hrs, and keep 3 hours, cool down to 25°C in 2.5hrs. 3. Raise temperature to 65±2°C 90-100%RH in 2.5hrs, and keep 3 hours, cool down to 25°C in 2.5hrs,keep at 25°C for 2 hrs then keep at -10°C for 3 hrs 4. Keep at 25°C 80-100%RH for 15min and vibrate at the frequency of 10 to 55 Hz to 10 Hz, measure at room temperature after placing for 1~2 hrs.															
Thermal shock		Preconditioning: Run through IR reflow for 2 times.(IPC/JEDEC J-STD-020DClassification Reflow Profiles Condition for 1 cycle Step1 : -40±2°C 30±5min Step2 : 25±2°C ≤0.5min Step3 : 125±2°C 30±5min Number of cycles : 500 Measured at room temperature after placing for 24±2 hrs															
Vibration		Oscillation Frequency: 10 ~ 2K ~ 10Hz for 20 minutes Equipment : Vibration checker Total Amplitude:1.52mm±10% Testing Time : 12 hours(20 minutes, 12 cycles each of 3 orientations).															
Bending		Shall be mounted on a FR4 substrate of the following dimensions: >=0805 inch(2012mm):40x100x1.2mm <0805 inch(2012mm):40x100x0.8mm Bending depth: >=0805 inch(2012mm):1.2mm <0805 inch(2012mm):0.8mm duration of 10 sec.															
Shock	Appearance : No damage. Impedance : within±15% of initial value Inductance : within±10% of initial value Q : Shall not exceed the specification value. RDC : within ±15% of initial value and shall not exceed the specification value	<table border="1"> <thead> <tr> <th>Type</th> <th>Peak value (g's)</th> <th>Normal duration (D) (ms)</th> <th>Wave form</th> <th>Velocity change (Vi)/ft/sec</th> </tr> </thead> <tbody> <tr> <td>SMD</td> <td>50</td> <td>11</td> <td>Half-sine</td> <td>11.3</td> </tr> <tr> <td>Lead</td> <td>50</td> <td>11</td> <td>Half-sine</td> <td>11.3</td> </tr> </tbody> </table>	Type	Peak value (g's)	Normal duration (D) (ms)	Wave form	Velocity change (Vi)/ft/sec	SMD	50	11	Half-sine	11.3	Lead	50	11	Half-sine	11.3
Type	Peak value (g's)	Normal duration (D) (ms)	Wave form	Velocity change (Vi)/ft/sec													
SMD	50	11	Half-sine	11.3													
Lead	50	11	Half-sine	11.3													
Solder ability	More than 95% of the terminal electrode should be covered with solder.	Preheat: 150°C,60sec.. Solder: Sn96.5% Ag3% Cu0.5% Temperature: 245±5°C ◦ Flux for lead free: Rosin. 9.5% ◦ Dip time: 4±1sec ◦ Depth: completely cover the termination Depth: completely cover the termination															
Resistance to Soldering Heat		<table border="1"> <thead> <tr> <th>Temperature(°C)</th> <th>Time(s)</th> <th>Temperature ramp/immersion and emersion rate</th> <th>Number of heat cycles</th> </tr> </thead> <tbody> <tr> <td>260 ±5 (solder temp)</td> <td>10 ±1</td> <td>25mm/s ±6 mm/s</td> <td>1</td> </tr> </tbody> </table>	Temperature(°C)	Time(s)	Temperature ramp/immersion and emersion rate	Number of heat cycles	260 ±5 (solder temp)	10 ±1	25mm/s ±6 mm/s	1							
Temperature(°C)	Time(s)	Temperature ramp/immersion and emersion rate	Number of heat cycles														
260 ±5 (solder temp)	10 ±1	25mm/s ±6 mm/s	1														
Terminal Strength	Appearance : No damage. Impedance : within±15% of initial value Inductance : within±10% of initial value Q : Shall not exceed the specification value. RDC : within ±15% of initial value and shall not exceed the specification value e	Preconditioning: Run through IR reflow for 2 times.(IPC/JEDEC J-STD-020DClassification Reflow Profiles With the component mounted on a PCB with the device to be tested, apply a force(>0805:1kg , <=0805:0.5kg)to the side of a device being tested. This force shall be applied for 60 +1 seconds. Also the force shall be applied gradually as not to apply a shock to the component being tested. 															

Note : When there are questions concerning measurement result : measurement shall be made after 48 ± 2 hours of recovery under the standard condition.