

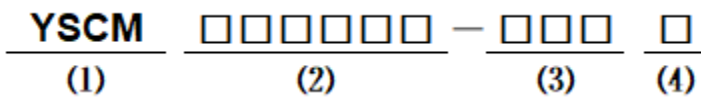
■ Features

- Ferrite drum core construction.
- Heat-resistant molded resin housing.
- Excellent mechanical strength.
- Wide range of L values from 0.1 to 1,000 μ H.
- Operating temperature: $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$ (Including self-temperature rise) .

■ Applications

- Wireless communication.
- Portable Devices.
- Personal computers, hard disk drives, and other electronic equip-ment.

■ Product Identification



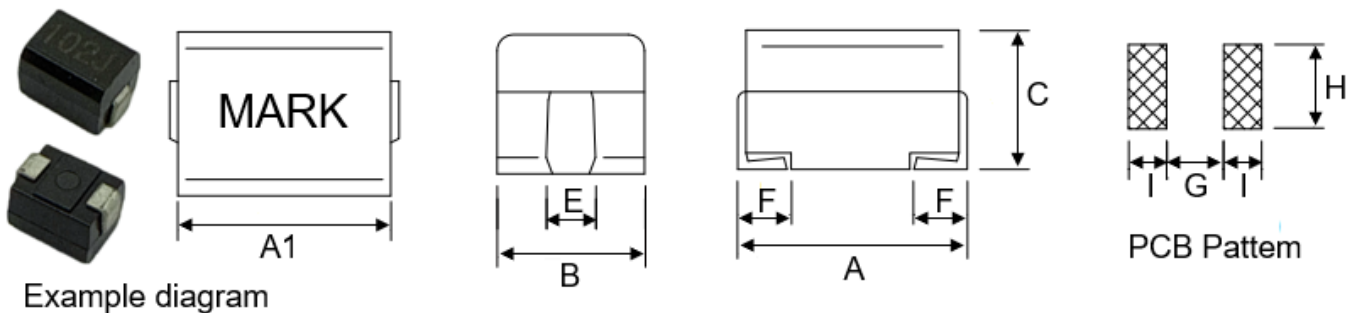
(1) : Type

(2) : Dimensions

(3) : Inductance value

(4) : Inductance Tolerance: M=±20%, K=±10%,J=±5%

■ Shapes and Dimensions (Unit: mm)



TYPE	A	A1	B	C	E	F	G Typ.	H Typ.	I Typ.
YSCM322522	3.2±0.4	2.9±0.2	2.5±0.2	2.2±0.2	1.0±0.2	0.6±0.3	1.8	1.4	1.0

■ YSCM322522 Series

Part Number	Inductance (uH)	Q Min.	Test Freq (MHz)	SRF Typ. (MHz)	RDC Max. (Ω)	IDC Max. (mA)
YSCM322522-R12K	0.12±10%	30	25.2	875	0.22	450
YSCM322522-R15K	0.15±10%	30	25.2	860	0.25	450
YSCM322522-R18K	0.18±10%	30	25.2	685	0.28	450
YSCM322522-R22K	0.22±10%	30	25.2	560	0.32	450
YSCM322522-R27K	0.27±10%	30	25.2	525	0.36	450
YSCM322522-R33K	0.33±10%	30	25.2	520	0.40	450
YSCM322522-R39K	0.39±10%	30	25.2	470	0.45	450
YSCM322522-R47K	0.47±10%	30	25.2	430	0.50	450
YSCM322522-R56K	0.56±10%	30	25.2	395	0.55	450
YSCM322522-R68K	0.68±10%	30	25.2	370	0.60	450
YSCM322522-R82K	0.82±10%	30	25.2	310	0.65	450
YSCM322522-1R0J	1.0±5%	30	7.96	295	0.70	400
YSCM322522-1R2J	1.2±5%	30	7.96	255	0.75	390
YSCM322522-1R5J	1.5±5%	30	7.96	160	0.85	370
YSCM322522-1R8J	1.8±5%	30	7.96	125	0.90	350
YSCM322522-2R2J	2.2±5%	30	7.96	100	1.00	320
YSCM322522-2R7J	2.7±5%	30	7.96	65	1.10	290
YSCM322522-3R3J	3.3±5%	30	7.96	55	1.20	260
YSCM322522-3R9J	3.9±5%	30	7.96	50	1.30	250
YSCM322522-4R7J	4.7±5%	30	7.96	45	1.50	220
YSCM322522-5R6J	5.6±5%	30	7.96	40	1.60	200
YSCM322522-6R8J	6.8±5%	30	7.96	35	1.80	180
YSCM322522-8R2J	8.2±5%	30	7.96	30	2.00	170
YSCM322522-100J	10±5%	30	2.52	30	2.10	150
YSCM322522-120J	12±5%	30	2.52	28	2.50	140
YSCM322522-150J	15±5%	30	2.52	25	2.80	130

■ YSCM322522 Series

Part Number	Inductance (uH)	Q Min.	Test Freq (MHz)	SRF Typ. (MHz)	RDC Max. (Ω)	IDC Max. (mA)
YSCM322522-180J	18±5%	30	2.52	22	3.30	120
YSCM322522-220J	22±5%	30	2.52	19	3.70	110
YSCM322522-270J	27±5%	30	2.52	18	5.00	80
YSCM322522-330J	33±5%	30	2.52	17	5.60	70
YSCM322522-390J	39±5%	30	2.52	15	6.40	65
YSCM322522-470J	47±5%	30	2.52	14	7.00	60
YSCM322522-560J	56±5%	30	2.52	13	8.00	55
YSCM322522-680J	68±5%	30	2.52	11	9.00	50
YSCM322522-820J	82±5%	30	2.52	10	10.0	45
YSCM322522-101J	100±5%	20	0.796	9	11.0	40
YSCM322522-121J	120±5%	20	0.796	8	11.0	70
YSCM322522-151J	150±5%	20	0.796	7	15.0	65

- ※ All test data is referenced to 25 °C ambient.
- ※ Rated current: Current cause inductance drop within 10%.
- ※ Moisture sensitivity Level 1.
- ※ Temp. rise: 20°C max.
- ※ Ambient temp. : 100°C max.
- ※ Storage temp. : -40°C ~ +125°C.

■ Reliability Test

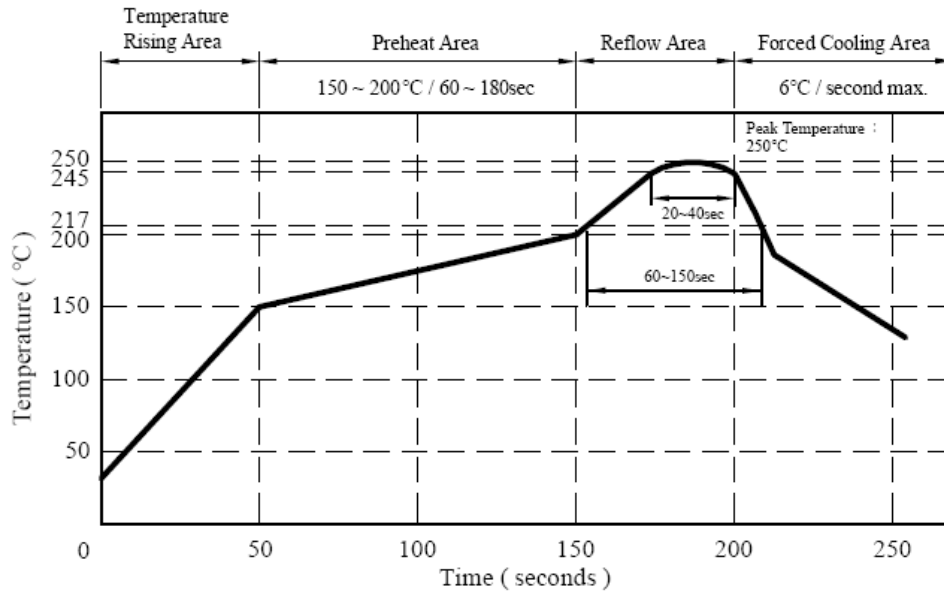
Item	Test Condition	Test Specification
High Temperature Exposure	1. Temperature: 125±2°C 2. Time: 96±2 hours.	1. No mechanical or electrical damage. 2. Inductance shall not change more than ±10%.
Temperature Cycling	1. Temperature: -40°C ~ +125°C 2. Number of cycle: 100 cycle 3. Dwell time: 30 minutes	1. No mechanical or electrical damage. 2. Inductance shall not change more than ±10%.
Biased Humidity Test	1. Temperature: 85±2 °C 2. Humidity: 85% RH. 3. Time: 96±2 Hours	1. No mechanical or electrical damage. 2. Inductance shall not change more than ±10%.
Operational Life	1. Temperature: 125°C (Temp. rise included) 2. Time: 96±2 hours. 3. Rated current	1. No mechanical or electrical damage. 2. Inductance shall not change more than ±10%.
External Visual	Inspect product constructions, marking and workmanship.	1. No pollution on the surface of products. 2. Clear marking. 3. No crack.
Physical Dimensions	Verify physical dimensions to the applicable product detail specification.	Per product specification standard
Resistance to solvents	Immerse into solvent for 3±0.5 minutes & brush 10 times for 3 cycles.	1. No body change in appearance. 2. No marking blurred. 3. Inductance shall not change more than ±10%.
Vibration Test	1. Frequency and Amplitude: 10-2000-10 Hz, 1.5 mm. 2. Direction: X, Y, Z 3. Test duration: 2 hours for each direction, 6 hours in total.	1. No mechanical or electrical damage. 2. Inductance shall not change more than ±10%.
Resistance To Soldering Heat Test	1. Highest temperature : 250±5°C . 2. Time (temp. ≥ 217°C): 60~ 150 Second. 3. IR reflow times : 3 times.	1. No mechanical or electrical damage. 2. Inductance shall not change more than ±10%.
Saturation Current	1. Applied rated current for 5 second. 2. Rated current	Inductance shall not drop more than 10% max.
Over load	1. Applied one and half rated current for a period of 5 minutes. 2. Rated current	No electrical or mechanical damage
Temperature Rise Current	1. Applied rated current for 10 minutes. 2. Temperature measure by digital surface thermometer. 3. Irms current	Surface temperature rise is less than 20°C max.

■ Reliability Test

Item	Test Condition	Test Specification
Solderability Test	1.Baking in pre-testing : 150±5°C / 16Hours±30 min. 2.Peak temperature : 240±5°C 3.Time (temp.≥217°C): 60~ 150 second. 4.IR reflow times : 1 times.	More than 95% soldering coverage min on terminations.
Electrical Characterization	1.Operating temperature : -40°C~ 125°C 2.Room temperature : 25°C .	1.No mechanical or electrical damage. 2.Inductance shall not change more than ±10%.
Withstanding Voltage Test	1.DC: 500 V (Terminal to Coating) 2.Time : 1minutes	1.During the test no breakdown. 2.No mechanical or electrical damage.
Insulation Resistance	DC voltage 100V applied between inductor terminal and coating for 1 minute.	1.IR = 1000MΩ Min. 2.No mechanical or electrical damage.
Drop	1.Products shall be mounted on SPEC. pcb and dropped down from a heigh of 1m 2.Drop total time : 6 time (Every side ofsample drop 2 time)	1. Adhesion on PCB shall be enough. 2. Product appearance shall not break. 3. No electrical damage.
Terminal Strength Test	1.Apply push force to samples mounted on PCB. 2.Force of 1.8 kg for 60±1 seconds.	After test, inductors shall be no mechanical damage.

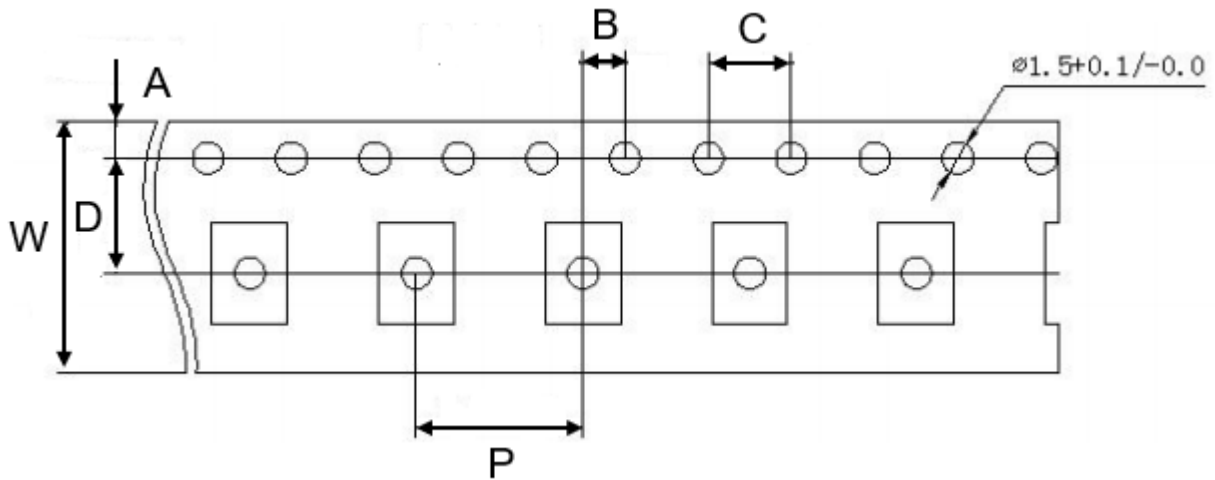
Recommended Soldering Technologies

Re-flowing Profile



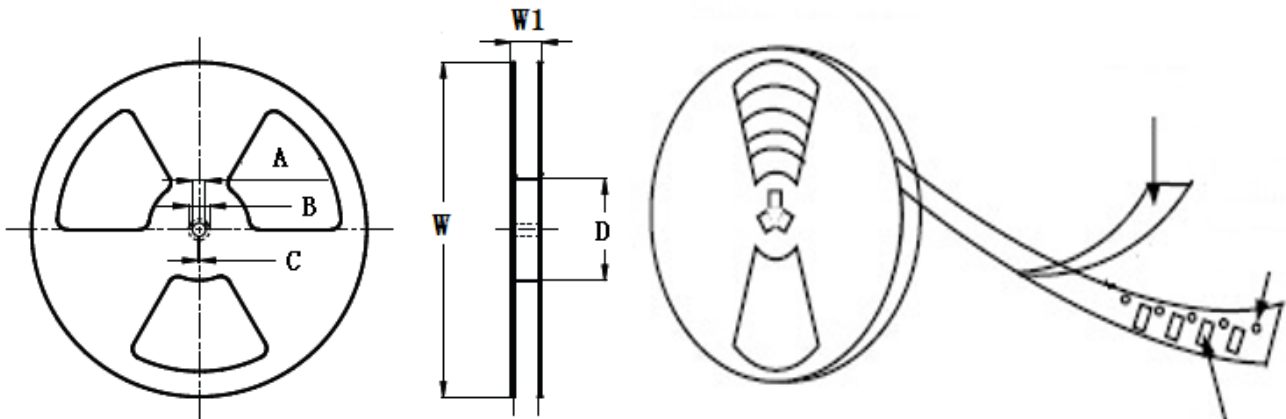
- Peak temp: 250°C Max.
- Max time above 245°C: 20~40 sec Max.
- Max time above 217°C: 60~150 sec Max.
- 200°C ~ 250°C Average Ramp-up Rate: 3°C/second Max.

■ Taping Dimensions(Unit:mm)



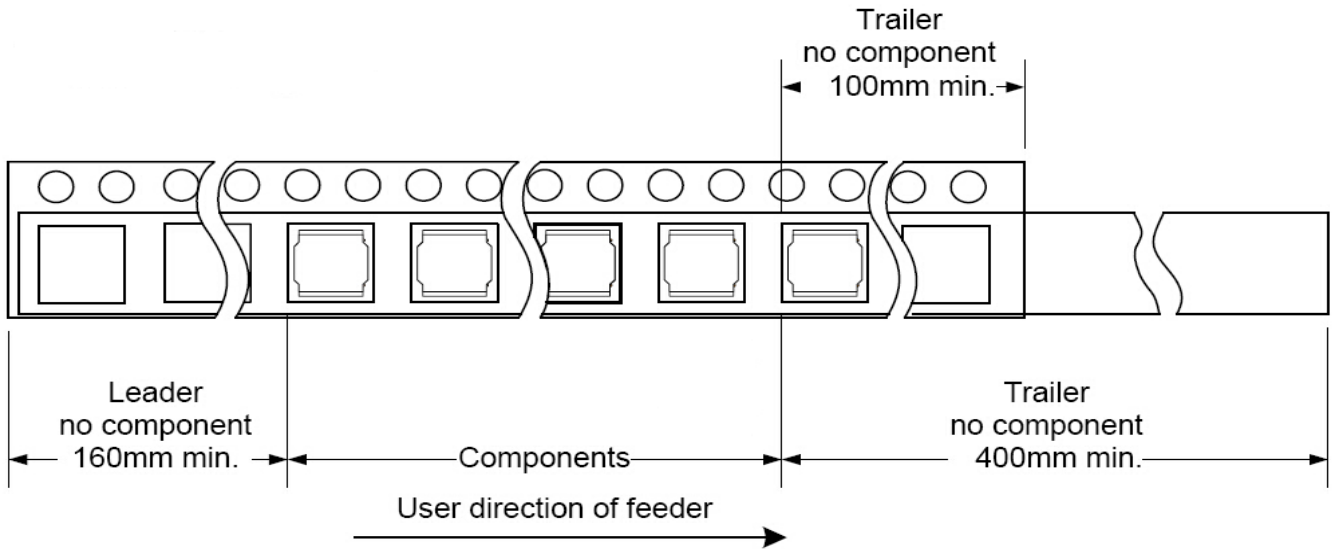
TYPE	W	A	B	C	D	P	MPQ
YSCM322522	12.0±0.3	1.75±0.1	2.0±0.1	4.0±0.1	5.5±0.1	8.0±0.1	1000

■ Reel Dimensions(Unit:mm)

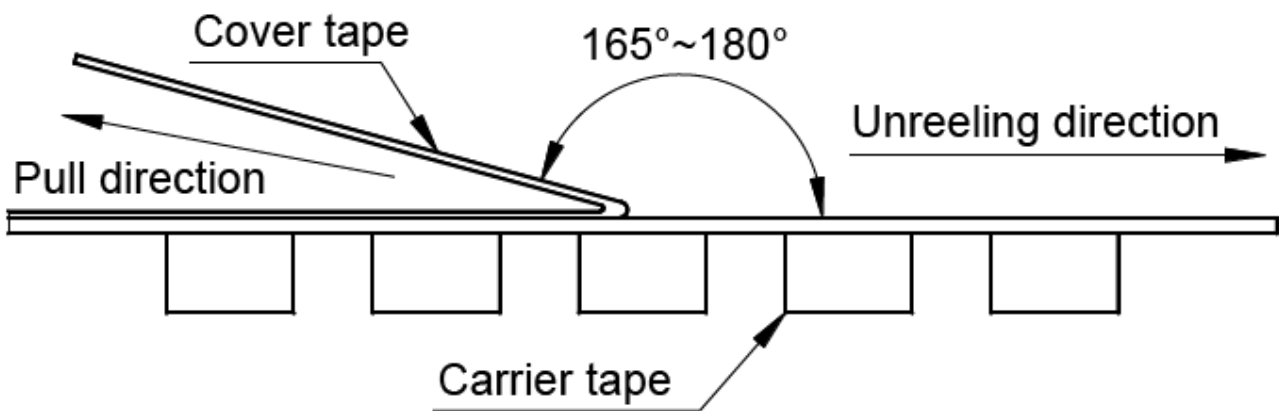


TYPE	W	W1	A	B	C	D
YSCM322522	178±2.0	22.0±2.0	13.0±0.50	21.0±0.80	2.0±0.50	60.0±2.0

Direction of rolling



Cover tape peel off condition



Cover tape peel force shall be 0.1N to 1.3N.

Reference peel speed 300±10mm/min.