Miniature Surface Mount Chip Inductors

SQV Series

For High Q Application

SQV Series comes in 2 sizes and provides wide inductance range , high Q value at high frequencies and low DC resistance

APPLICATIONS

Personal, Cordless Phone

High Freq. Communication Products

GPS (Global Position System)

Personal Computers

Note : SQV Series is not suitable for wave soldering

FEATURES

This miniature chip inductors wound on a special ferrite core.

High Q value at high frequencies and low DC resistance.

Wide Inductance Range

PRODUCT IDENTIFICATION

SQV □□□□□□□-□□□□-□

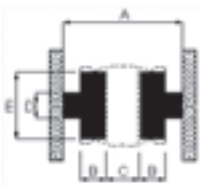
- Intemal No.
- Tolerance
- Inductance
- Packaging Style
- Dimensions
- Product Symbol

- Packaging : T: Tape and Reel
- Tolerance : J = ±5% ; K= ±10% ; M= ±20%
- YAGEO will start to release lead-free that meet SONY SS-00259's criteria, and Internal No. well be changed to "N" as identification.

  Ex. SQV322520T-220J-N

RECOMMENDED PATTERN

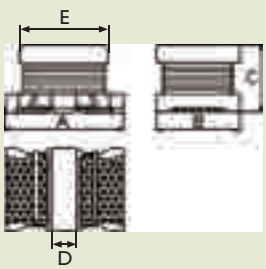
Dimensions : mm



TYPE	A	B	C	D	E
SQV322520	5.5	1.0	1.3	1.0	2.0
SQV453226	7.5	1.5	1.5	1.5	3.0

SHAPES AND DIMENSIONS

Dimensions : mm



TYPE	A	B	C	D	E
SQV322520	3.2 ± 0.3	2.5 ± 0.2	2.0 ± 0.2	1.3 TYP	2.5 ± 0.2
SQV453226	4.5 ± 0.3	3.2 ± 0.2	2.6 ± 0.2	1.0 Min	3.6 ± 0.2

ELECTRICAL CHARACTERISTICS

PART NO.	INDUCTANCE (μH)			QUALITY FACTOR		DC RESISTANCE	SRF	IDC
	NOMINAL VALUE	TOLERANCE (±%)	TEST FREQUENCY	SPEC. Min.	TEST FREQUENCY	(Ω) Max.	(MHz) Min.	(mA) Max.
SQV322520T-R10 □ -S	0.10	20	1MHz	20	25.2MHz	0.25	200	700
SQV322520T-R18 □ -S	0.18	20	1MHz	20	25.2MHz	0.25	200	650
SQV322520T-R27 □ -S	0.27	20	1MHz	25	25.2MHz	0.25	200	600
SQV322520T-R39 □ -S	0.39	20	1MHz	25	25.2MHz	0.25	200	530
SQV322520T-R56 □ -S	0.56	20	1MHz	30	25.2MHz	0.25	160	530
SQV322520T-R68 □ -S	0.68	20	1MHz	30	25.2MHz	0.25	160	470
SQV322520T-R82 □ -S	0.82	20	1MHz	30	25.2MHz	0.25	120	450
SQV322520T-1R0 □ -S	1.0	20	1MHz	20	1MHz	0.50	100	445
SQV322520T-1R2 □ -S	1.2	20	1MHz	20	1MHz	0.60	100	425
SQV322520T-1R5 □ -S	1.5	10/20	1MHz	20	1MHz	0.60	75	400
SQV322520T-1R8 □ -S	1.8	10/20	1MHz	20	1MHz	0.70	60	390
SQV322520T-2R2 □ -S	2.2	10/20	1MHz	20	1MHz	0.80	50	370
SQV322520T-2R7 □ -S	2.7	10/20	1MHz	20	1MHz	0.90	43	320
SQV322520T-3R3 □ -S	3.3	10/20	1MHz	20	1MHz	1.0	38	300
SQV322520T-3R9 □ -S	3.9	10/20	1MHz	20	1MHz	1.1	35	290
SQV322520T-4R7 □ -S	4.7	10/20	1MHz	20	1MHz	1.2	31	270
SQV322520T-5R6 □ -S	5.6	10/20	1MHz	20	1MHz	1.3	28	250
SQV322520T-6R8 □ -S	6.8	10/20	1MHz	20	1MHz	1.5	25	240
SQV322520T-8R2 □ -S	8.2	10/20	1MHz	20	1MHz	1.6	23	225
SQV322520T-100 □ -S	10	5/10	1MHz	35	1MHz	1.8	20	190
SQV322520T-120 □ -S	12	5/10	1MHz	35	1MHz	2.0	18	180
SQV322520T-150 □ -S	15	5/10	1MHz	35	1MHz	2.2	16	170
SQV322520T-180 □ -S	18	5/10	1MHz	35	1MHz	2.5	15	165
SQV322520T-220 □ -S	22	5/10	1MHz	35	1MHz	2.8	14	150
SQV322520T-270 □ -S	27	5/10	1MHz	35	1MHz	3.1	13	125
SQV322520T-330 □ -S	33	5/10	1MHz	40	1MHz	3.5	12	115
SQV322520T-390 □ -S	39	5/10	1MHz	40	1MHz	3.9	11	110
SQV322520T-470 □ -S	47	5/10	1MHz	40	1MHz	4.3	11	100
SQV322520T-560 □ -S	56	5/10	1MHz	40	1MHz	4.9	10.0	85
SQV322520T-680 □ -S	68	5/10	1MHz	40	1MHz	5.5	9.0	80
SQV322520T-820 □ -S	82	5/10	1MHz	40	1MHz	6.2	8.5	70
SQV322520T-101 □ -S	100	5/10	1MHz	40	796KHz	7.0	8.0	80
SQV322520T-121 □ -S	120	5/10	1MHz	40	796KHz	8.0	7.5	75
SQV322520T-151 □ -S	150	5/10	1MHz	40	796KHz	9.3	7.0	70
SQV322520T-181 □ -S	180	5/10	1MHz	40	796KHz	10.2	6.0	65
SQV322520T-221 □ -S	220	5/10	1MHz	40	796KHz	11.8	5.5	65
SQV322520T-271 □ -S	270	5/10	1MHz	40	796KHz	12.5	5.0	65
SQV322520T-331 □ -S	330	5/10	1MHz	40	796KHz	13.0	5.0	65
SQV322520T-391 □ -S	390	5/10	1MHz	50	796KHz	22.0	5.0	50
SQV322520T-471 □ -S	470	5/10	1KHz	50	796KHz	25.0	5.0	45
SQV322520T-561 □ -S	560	5/10	1KHz	50	796KHz	28.0	5.0	40

ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

PART NO.	INDUCTANCE (μH)	L/Q TEST FREQ	Q Min.	SRF (MHz) Min.	RDC (Ω) Max.	Rated Current (A) Max.	TOLERANCE (±%)
SQV322520T-R10 □ -N	0.1	1MHz/25.2MHz	20	200	0.025	0.7	M
SQV322520T-1R0 □ -N	1	1MHz/1MHz	20	100	0.5	0.445	M
SQV322520T-1R2 □ -N	1.2	1MHz/1MHz	20	100	0.6	0.425	K,M
SQV322520T-1R5 □ -N	1.5	1MHz/1MHz	20	75	0.6	0.4	K,M
SQV322520T-1R8 □ -N	1.8	1MHz/1MHz	20	60	0.7	0.39	K,M
SQV322520T-2R2 □ -N	2.2	1MHz/1MHz	20	50	0.8	0.37	K,M
SQV322520T-2R7 □ -N	2.7	1MHz/1MHz	20	43	0.9	0.32	K,M
SQV322520T-3R3 □ -N	3.3	1MHz/1MHz	20	38	1	0.3	K,M
SQV322520T-3R9 □ -N	3.9	1MHz/1MHz	20	35	1.1	0.29	K,M
SQV322520T-4R7 □ -N	4.7	1MHz/1MHz	20	31	1.2	0.27	K,M
SQV322520T-5R6 □ -N	5.6	1MHz/1MHz	20	28	1.3	0.25	K,M
SQV322520T-6R8 □ -N	6.8	1MHz/1MHz	20	25	1.5	0.24	K,M
SQV322520T-8R2 □ -N	8.2	1MHz/1MHz	20	23	1.6	0.225	K,M
SQV322520T-100 □ -N	10	1MHz/1MHz	35	20	1.8	0.19	J,K,M
SQV322520T-120 □ -N	12	1MHz/1MHz	35	18	2	0.18	J,K,M
SQV322520T-150 □ -N	15	1MHz/1MHz	35	16	2.2	0.17	J,K,M
SQV322520T-180 □ -N	18	1MHz/1MHz	35	15	2.5	0.165	J,K,M
SQV322520T-220 □ -N	22	1MHz/1MHz	35	14	2.8	0.15	J,K,M
SQV322520T-270 □ -N	27	1MHz/1MHz	35	13	3.1	0.125	J,K,M
SQV322520T-330 □ -N	33	1MHz/1MHz	40	12	3.5	0.115	J,K,M
SQV322520T-390 □ -N	39	1MHz/1MHz	40	11	3.9	0.11	J,K,M
SQV322520T-470 □ -N	47	1MHz/1MHz	40	11	4.3	0.1	J,K,M
SQV322520T-560 □ -N	56	1MHz/1MHz	40	10	4.9	0.085	J,K,M
SQV322520T-680 □ -N	68	1MHz/1MHz	40	9	5.5	0.08	J,K,M
SQV322520T-820 □ -N	82	1MHz/1MHz	40	8.5	6.2	0.07	J,K,M
SQV322520T-101 □ -N	100	1MHz/796KHz	40	8	7	0.08	J,K,M
SQV322520T-121 □ -N	120	1MHz/796KHz	40	7.5	8	0.075	J,K,M
SQV322520T-151 □ -N	150	1MHz/796KHz	40	7	9.3	0.07	J,K,M
SQV322520T-181 □ -N	180	1MHz/796KHz	40	6	10.2	0.065	J,K,M
SQV322520T-221 □ -N	220	1MHz/796KHz	40	5.5	11.8	0.065	J,K,M
SQV322520T-271 □ -N	270	1MHz/796KHz	40	5	12.5	0.065	J,K,M
SQV322520T-331 □ -N	330	1MHz/796KHz	40	5	13	0.065	J,K,M
SQV322520T-391 □ -N	390	1MHz/796KHz	50	5	22	0.05	J,K,M
SQV322520T-471 □ -N	470	1KHz/796KHz	50	5	25	0.045	J,K,M
SQV322520T-561 □ -N	560	1KHz/796KHz	50	5	28	0.04	J,K,M

NOTE: □-tolerance J= ±5% / K= ±10% / M=± 20%

1.Operating temperature range -25°C~85°C

2.Rated Current: Self temperature rise shall be limited to 35°C Max. Inductance drop 10% typ.

3.L/Q Test OSC @1V

"-N"FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)

ELECTRICAL CHARACTERISTICS

PART NO.	INDUCTANCE (μH)			QUALITY FACTOR		DC RESISTANCE	SRF	IDC
	NOMINAL VALUE	TOLERANCE (±%)	TEST FREQUENCY	SPEC. Min.	TEST FREQUENCY	(Ω) Max.	(MHz) Min.	(mA) Max.
SQV453226T-1R0 □ -S	1.0	20	1MHz	20	1MHz	0.20	120	500
SQV453226T-1R2 □ -S	1.2	20	1MHz	20	1MHz	0.20	100	500
SQV453226T-1R5 □ -S	1.5	20	1MHz	20	1MHz	0.30	85	500
SQV453226T-1R8 □ -S	1.8	20	1MHz	20	1MHz	0.30	75	500
SQV453226T-2R2 □ -S	2.2	20	1MHz	20	1MHz	0.30	62	500
SQV453226T-2R7 □ -S	2.7	20	1MHz	20	1MHz	0.32	53	500
SQV453226T-3R3 □ -S	3.3	20	1MHz	20	1MHz	0.35	47	500
SQV453226T-3R9 □ -S	3.9	20	1MHz	20	1MHz	0.38	41	500
SQV453226T-4R7 □ -S	4.7	10/20	1MHz	30	1MHz	0.40	38	500
SQV453226T-5R6 □ -S	5.6	10/20	1MHz	30	1MHz	0.47	33	500
SQV453226T-6R8 □ -S	6.8	10/20	1MHz	30	1MHz	0.50	31	450
SQV453226T-8R2 □ -S	8.2	10/20	1MHz	30	1MHz	0.56	27	450
SQV453226T-100 □ -S	10	5/10	1MHz	35	1MHz	0.56	23	400
SQV453226T-120 □ -S	12	5/10	1MHz	35	1MHz	0.62	21	380
SQV453226T-150 □ -S	15	5/10	1MHz	35	1MHz	0.73	19	360
SQV453226T-180 □ -S	18	5/10	1MHz	35	1MHz	0.82	17	340
SQV453226T-220 □ -S	22	5/10	1MHz	35	1MHz	0.94	15	320
SQV453226T-270 □ -S	27	5/10	1MHz	35	1MHz	1.1	14	300
SQV453226T-330 □ -S	33	5/10	1MHz	35	1MHz	1.2	12	270
SQV453226T-390 □ -S	39	5/10	1MHz	35	1MHz	1.4	11	240
SQV453226T-470 □ -S	47	5/10	1MHz	35	1MHz	1.5	10	220
SQV453226T-560 □ -S	56	5/10	1MHz	35	1MHz	1.7	9.3	200
SQV453226T-680 □ -S	68	5/10	1MHz	35	1MHz	1.9	8.4	180
SQV453226T-820 □ -S	82	5/10	1MHz	35	1MHz	2.2	7.5	170
SQV453226T-101 □ -S	100	5/10	1MHz	40	796KHz	2.5	6.8	160
SQV453226T-121 □ -S	120	5/10	1MHz	40	796KHz	3.0	6.2	150
SQV453226T-151 □ -S	150	5/10	1MHz	40	796KHz	3.7	5.5	130
SQV453226T-181 □ -S	180	5/10	1MHz	40	796KHz	4.5	5.0	120
SQV453226T-221 □ -S	220	5/10	1MHz	40	796KHz	5.4	4.5	110
SQV453226T-271 □ -S	270	5/10	1MHz	40	796KHz	6.8	4.0	100
SQV453226T-331 □ -S	330	5/10	1MHz	40	796KHz	8.2	3.6	95
SQV453226T-391 □ -S	390	5/10	1MHz	40	796KHz	9.7	3.3	90
SQV453226T-471 □ -S	470	5/10	1KHz	40	796KHz	11.8	3.0	80
SQV453226T-561 □ -S	560	5/10	1KHz	40	796KHz	14.5	2.7	70
SQV453226T-681 □ -S	680	5/10	1KHz	40	796KHz	17.5	2.5	65
SQV453226T-821 □ -S	820	5/10	1KHz	40	796KHz	20.5	2.2	60
SQV453226T-102 □ -S	1000	5/10	1KHz	40	252KHz	25.0	2.0	50
SQV453226T-122 □ -S	1200	5/10	1KHz	40	252KHz	30.0	1.8	45
SQV453226T-152 □ -S	1500	5/10	1KHz	40	252KHz	37.0	1.6	40
SQV453226T-182 □ -S	1800	5/10	1KHz	40	252KHz	45.0	1.5	35
SQV453226T-222 □ -S	2200	5/10	1KHz	40	252KHz	50.0	1.3	30

- Rated Current : Self temperature rise shall be limited to 35°C Max. Inductance drop 10% typ.
- Operating temp : -25°C~85°C
- Soldering Heat : 230°C 10 sec after 150°C preheat cycle for 4 min.
- Inductance tolerance : J=±5% K=±10% M=±20%
- Test Equipment : L&Q : HP4192A. LF Impedance Analyzer
  SRF : HP4291A RF Impedance Analyzer
  DCR : CH502BC/HP4338B

ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

PART NO.	INDUCTANCE (μH)	L/Q TEST FREQ	Q Min.	SRF (MHz) Min.	RDC (Ω) Max.	Rated Current (A) Max.	TOLERANCE (±%)
SQV453226T-1R0 □ -N	1	1MHz/1MHz	20	120	0.2	0.5	M
SQV453226T-1R2 □ -N	1.2	1MHz/1MHz	20	100	0.2	0.5	M
SQV453226T-1R5 □ -N	1.5	1MHz/1MHz	20	85	0.3	0.5	M
SQV453226T-1R8 □ -N	1.8	1MHz/1MHz	20	75	0.3	0.5	M
SQV453226T-2R2 □ -N	2.2	1MHz/1MHz	20	62	0.3	0.5	M
SQV453226T-2R7 □ -N	2.7	1MHz/1MHz	20	53	0.32	0.5	M
SQV453226T-3R3 □ -N	3.3	1MHz/1MHz	20	47	0.35	0.5	M
SQV453226T-3R9 □ -N	3.9	1MHz/1MHz	20	41	0.38	0.5	M
SQV453226T-4R7 □ -N	4.7	1MHz/1MHz	30	38	0.4	0.5	K,M
SQV453226T-5R6 □ -N	5.6	1MHz/1MHz	30	33	0.47	0.5	K,M
SQV453226T-6R8 □ -N	6.8	1MHz/1MHz	30	31	0.5	0.45	K,M
SQV453226T-8R2 □ -N	8.2	1MHz/1MHz	30	27	0.56	0.45	K,M
SQV453226T-100 □ -N	10	1MHz/1MHz	35	23	0.56	0.4	J,K,M
SQV453226T-120 □ -N	12	1MHz/1MHz	35	21	0.62	0.38	J,K,M
SQV453226T-150 □ -N	15	1MHz/1MHz	35	19	0.73	0.36	J,K,M
SQV453226T-180 □ -N	18	1MHz/1MHz	35	17	0.82	0.34	J,K,M
SQV453226T-220 □ -N	22	1MHz/1MHz	35	15	0.94	0.32	J,K,M
SQV453226T-270 □ -N	27	1MHz/1MHz	35	14	1.1	0.3	J,K,M
SQV453226T-330 □ -N	33	1MHz/1MHz	35	12	1.2	0.27	J,K,M
SQV453226T-390 □ -N	39	1MHz/1MHz	35	11	1.4	0.24	J,K,M
SQV453226T-470 □ -N	47	1MHz/1MHz	35	10	1.5	0.22	J,K,M
SQV453226T-560 □ -N	56	1MHz/1MHz	35	9.3	1.7	0.2	J,K,M
SQV453226T-680 □ -N	68	1MHz/1MHz	35	8.4	1.9	0.18	J,K,M
SQV453226T-820 □ -N	82	1MHz/1MHz	35	7.5	2.2	0.17	J,K,M
SQV453226T-101 □ -N	100	1MHz/0.796MHz	40	6.8	2.5	0.16	J,K,M
SQV453226T-121 □ -N	120	1MHz/0.796MHz	40	6.2	3	0.15	J,K,M
SQV453226T-151 □ -N	150	1MHz/0.796MHz	40	5.5	3.7	0.13	J,K,M
SQV453226T-181 □ -N	180	1MHz/0.796MHz	40	5	4.5	0.12	J,K,M
SQV453226T-221 □ -N	220	1MHz/0.796MHz	40	4.5	5.4	0.11	J,K,M
SQV453226T-271 □ -N	270	1MHz/0.796MHz	40	4	6.8	0.1	J,K,M
SQV453226T-331 □ -N	330	1MHz/0.796MHz	40	3.6	8.2	0.095	J,K,M
SQV453226T-391 □ -N	390	1MHz/0.796MHz	40	3.3	9.7	0.09	J,K,M
SQV453226T-471 □ -N	470	1KHz/0.796MHz	40	3	11.8	0.08	J,K,M
SQV453226T-561 □ -N	560	1KHz/0.796MHz	40	2.7	14.5	0.07	J,K,M
SQV453226T-681 □ -N	680	1KHz/0.796MHz	40	2.5	17.5	0.065	J,K,M
SQV453226T-821 □ -N	820	1KHz/0.796MHz	40	2.2	20.5	0.06	J,K,M
SQV453226T-102 □ -N	1000	1KHz/0.252MHz	40	2	25	0.05	J,K,M
SQV453226T-122 □ -N	1200	1KHz/0.252MHz	40	1.8	30	0.045	J,K,M
SQV453226T-152 □ -N	1500	1KHz/0.252MHz	40	1.6	37	0.04	J,K,M
SQV453226T-182 □ -N	1800	1KHz/0.252MHz	40	1.5	45	0.035	J,K,M
SQV453226T-222 □ -N	2200	1KHz/0.252MHz	40	1.3	50	0.03	J,K,M

NOTE: □-tolerance J= ±5% / K= ±10% / M=± 20%

1.Operating temperature range -25°C~85°C

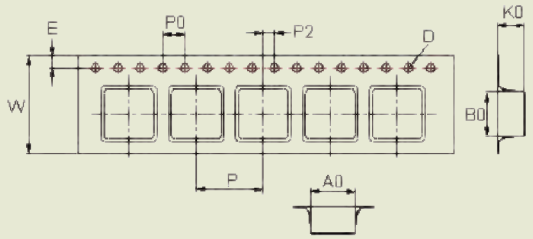
2.Rated Current: Self temperature rise shall be limited to 35°C Max. Inductance drop 10% typ.

3.L/Q Test OSC @1V

"-N"FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)

TAPE DIMENSTIONS

Dimensions : mm

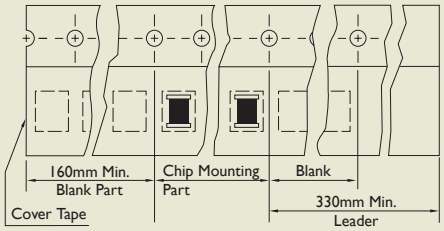


TAPE MATERIAL

Dimensions : mm

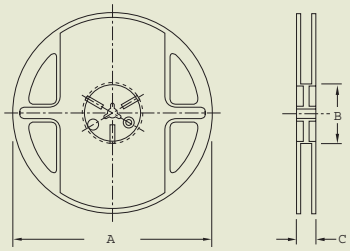
Carrier Tape : Polystyrene

Cover Type : Polyethylene



REEL DIMENSIONS

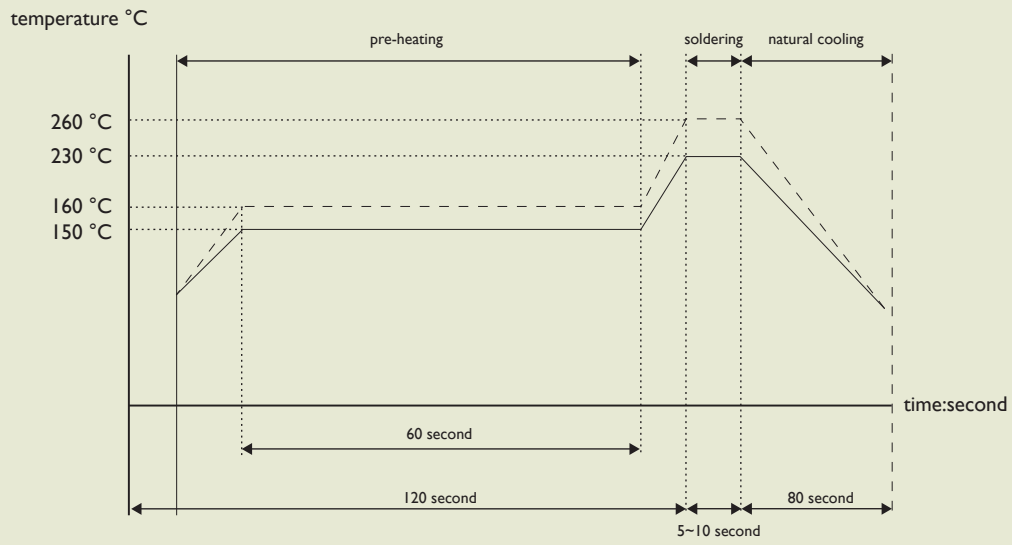
Dimensions : mm



TYPE	TAPE DIMENSIONS									REEL DIMENSIONS				QUANTITY
	A0	B0	K0	D	E	W	P	P0	P2	A	B	C	D	PCS/REEL
SQV322520	2.90	3.60	2.25	1.5	1.75	8	4	4	2	178	60	9	1.5	2000
SQV453226	3.60	4.90	3.00	1.5	1.75	12	8	4	2	178	60	13.2	1.5	500

RECOMMEND SOLDERING CONDITIONS

for:CL/ CLH/ SQV/ SMD power inductors/ SMD Chip Beads/ SMD Filters,Transformers, Current Sensors



for: lead solder ——————

for: lead-free solder ·····