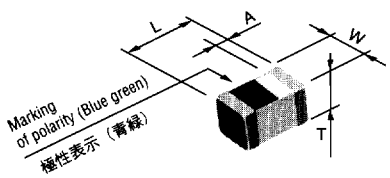
Multilayer chip inductors 積層チップインダクタ

LL1005-FH series



(Unit: mm)
L: 1.0±0.15
W: 0.5±0.15
A: 0.25±0.1
T: 0.5±0.15

Features
- Ultra Miniature and light (1.0 × 0.5 × 0.5mm: 1mg or lighter)
- Excellent high frequency performance: Up to 6GHz
- Q: 20~30 (for reference only) at 800MHz
- Operating Temperature: –40°C~+100°C
- Packaged on Tape and Reel

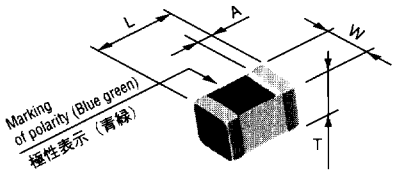
特長
- 超小形・最軽量（1.0×0.5×0.5mm：1mg 以下）
- 高周波適用性：6GHz（Max.）まで適用可能
- Q 値（参考値）：20~30 (800MHz の場合)
- 使用温度範囲：–40°C~+100°C
- テーピング梱包

Specifications Inductance range: 1.0~47nH (E-12)

TOKO part number	Inductance L (nH) 100MHz	Inductance tolerance	Q Typ. (MHz) 100	Q Typ. (MHz) 800	S.R.F. (MHz) (Typ.)	Idc (mA) (Max.)	Pcs per tape
LL1005-FH1N0S	1.0	S	9	28	6,000<	300	10,000
〃	〃	〃		〃	〃	〃	〃
LL1005-FH2N7S	2.7	S	11	30	6,000<	300	10,000
LL1005-FH3N3□	3.3	S, K	11	30	5,200	300	10,000
〃	〃	〃		〃	〃	〃	〃
LL1005-FH5N6□	5.6	S, K	11	31	4,100	300	10,000
LL1005-FH6N8□	6.8	J, K	11	31	3,800	300	10,000
〃	〃	〃		〃	〃	〃	〃
LL1005-FH47N□	47	J, K	9	22	1,300	200	10,000

□ : Tolerance (S=±0.3nH, J=±5%, K=±10%)

LL1608-FH series



(Unit: mm)
L: 1.6±0.15
W: 0.8±0.15
A: 0.3±0.2
T: 0.8±0.15

Features
- High Q: 35 (for reference only) at 800MHz
- High current capacity: (300mA~1000mA)
- Miniatures Size (1.6×0.8×0.8mm)
- Excellent high frequency performance: Up to 6GHz
- Operating Temperature: –40°C~+100°C
- Packaged on Tape and Reel

特長
- 高 Q 値（参考値）：35 (800MHz の場合)
- 高許容電流化：(300mA~1000mA)
- 微小サイズ（1.6×0.8×0.8mm）
- 高周波適用性：6GHz（Max.）まで適用可能
- 使用温度範囲：–40°C~+100°C
- テーピング梱包

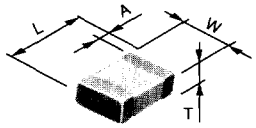
Specifications Inductance range: 1.2~100nH (E-12)

TOKO part number	Inductance L (nH) 100MHz	Inductance tolerance	Q (Typ.) (MHz) 100	Q (Typ.) (MHz) 500	Q (Typ.) (MHz) 800	S.R.F. (MHz) (Typ.)	Idc (mA) (Max.)	Pcs per tape
LL1608-FH1N2S	1.2	S	13	—	60	6000<	1000	4000
〃	〃	〃		〃		〃	〃	〃
LL1608-FH2N7S	2.7	S	12	—	38	6000<	1000	4000
LL1608-FH3N3□	3.3	S, K	12	—	41	5900	1000	4000
〃	〃	〃		〃		〃	〃	〃
LL1608-FH5N6□	5.6	S, K	12	—	42	4350	600	4000
LL1608-FH6N8□	6.8	J, K	12	—	40	3750	600	4000
〃	〃	〃		〃		〃	〃	〃
LL1608-FH33N□	33	J, K	18	—	39	1580	600	4000
LL1608-FH39N□	39	J, K	17	37	—	1400	500	4000
〃	〃	〃		〃		〃	〃	〃
LL1608-FHR10□	100	J, K	15	16	—	850	300	4000

□ : Tolerance (S=±0.3nH, J =±5%, K=±10%)

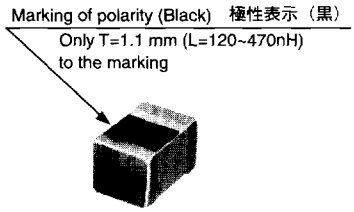
Multilayer chip inductors 積層チップインダクタ

LL2012-F series



(Unit: mm)
L: 2.0±0.2
W: 1.25±0.2
A: 0.5±0.3

T: 0.6±0.2 (1.5~8.2nH)
0.85±0.3 (10~39nH)
1.0±0.3 (47~100nH)
1.1±0.3 (120~470nH)



Features

- Excellent high frequency performance: Up to 6GHz
- Miniature Size (2×1.25×T mm)
- Q: 30 Typical (at 800MHz)
- Operating Temperature: −40°C~+100°C
- Packaged on Tape and Reel

特長

- 高周波適用性：6GHz（Max.）まで適用可能
- 微小サイズ（2×1.25×Tmm）
- Q値（Typ.）：30 (800MHzの場合)
- 使用温度範囲：−40°C~+100°C
- テーピング梱包

Specifications

Inductance range: 1.5~470nH (E-12)

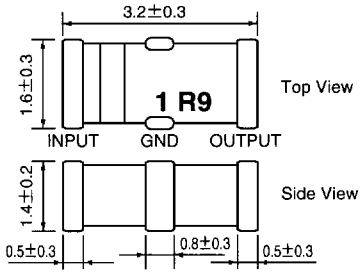
TOKO part number	Inductance L (nH)	Freq.(MHz)	Tolerance	Q (Typ.) (MHz) 25	50	100	800	S.R.F. (MHz) (Typ.)	Pcs per tape
LL2012-F1N5S	1.5	100	S	—	—	13	40	6000<	4000
〃	〃	〃	〃		〃			〃	〃
LL2012-F2N7S	2.7	100	S	—	—	12	36	6000<	4000
LL2012-F3N3□	3.3	100	S, K, M	—	—	13	56	6000<	4000
〃	〃	〃	〃		〃			〃	〃
LL2012-F5N6□	5.6	100	S, K, M	—	—	15	53	4000	4000
LL2012-F6N8□	6.8	100	J, K, M	—	—	15	51	3650	4000
〃	〃	〃			〃			〃	〃
LL2012-F47N□	47	100	〃	—	—	18	33	1200	3000
〃	〃	〃			〃			〃	〃
LL2012-FR12□	120	50	J, K, M	—	15	19	—	650	3000
〃	〃	〃	〃		〃			〃	〃
LL2012-FR22□	220	50	J, K, M	—	17	20	—	450	3000
LL2012-FR27□	270	25	J, K, M	13	18	—	—	400	3000
〃	〃	〃	〃		〃			〃	〃
LL2012-FR47□	470	25	J, K, M	13	16	—	—	300	3000

□: Tolerance (S=±0.3nH, J=±5%, K=±10%, M=±20%)

Multilayer chip low pass filters 積層チップローパスフィルタ

LTF3216L-F series

Dimensions (Unit: mm)



Features

- Miniature size (3.2×1.6×1.4mm)
- Carrier frequency range: 800MHz~2.5GHz
- Suitable for flow and reflow soldering
- Packeged on tape and reel
- Operating temperature range: –40°c~+85°c

特長

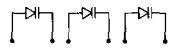
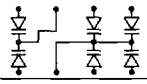
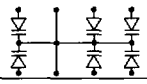
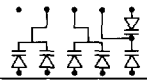
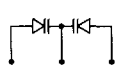
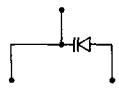
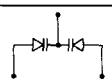
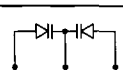
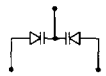
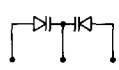
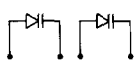
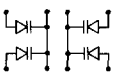
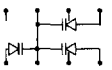
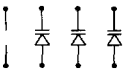
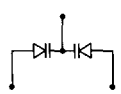
- 微小サイズ (3.2×1.6×1.4mm)
- 適用周波数範囲 : 800MHz~2.5GHz
- フロー、リフロはんだ付け対応
- テーピング梱包
- 使用温度範囲 :–40℃~+85℃

Specifications

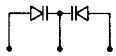
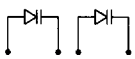
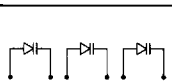
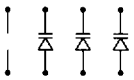
Part number	Nominal Fo MHz	Bandwidth MHz	Insertion loss	Bandwidth VSNR	Attenuation @2 ×(fo±BW)	Attenuation @3 × (fo±BW)	Power capacity	Impedance
LTF3216L-FR80G	836.5MHz	25MHz						
LTF3216L-FR90G	902.5MHz	25MHz					2W	
LTF3216L-FR90C	968MHz	25MHz					(Max.)	
LTF3216L-FR90A	915MHz	26MHz						
LTF3216L-F1R3G	1311MHz	24MHz						
LTF3216L-F1R4G	1441MHz	24MHz	0.6dB Max.	1.5 Max.	30dB Min.	18dB Min.		50
LTF3216L-F1R4A	1489MHz	24MHz	(0.35dB Typ.)	(1.15 Typ.)	(37dB Typ.)	(27dB Typ.)		
LTF3216L-F1R6G	1660MHz	25MHz					3W	
LTF3216L-F1R7G	1747.5MHz	75MHz					(Max.)	
LTF3216L-F1R8G	1880MHz	60MHz						
LTF3216L-F1R9A	1890MHz	20MHz						
LTF3216L-F1R9G	1907.5MHz	25MHz						
LTF3216L-F2R4G	2450MHz	100MHz						

Low end version (Attenuation: 25dBat 2× Fo), identifiable with and L attached at the end of our product number, are also available.
For details, please refer to our LTF 3216L-F series catalog.
品番末尾に「L」のつくローエンドバーション(Attenuation:25dB at 2×Fo)も用意しております。
詳しくは当社の個別カタログをご覧下さい。

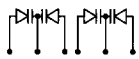
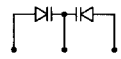
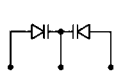
Variable capacitance diodes for AM tuning AM用電圧可変容量ダイオード

Part number	V_R Max.	Capacitance (pF)				Capacitance ratio				Q Min. 1V 1MHz	Package	C Tolerance Δ C Max.	Pin layout.	Surface mounting	Taping
		Min.	Typ.	Max.	V_R (V)	Min.	Typ.	Max.	V_R (V)						
KV1235Z	20	445.0 22.5	487.0 26.0	535.0 30.5	1 8	16.5		22.0	1/8	200	CB3-6	2% (V_R=1V) 3% (V_R=4.5V) 0.3pF+3% (V_R=8V)			
KV1260	20	445.0 22.5	487.0 26.0	535.0 30.5	1 8	16.5		22.0	1/8	200	CB1-3	1% (V_R=1V) 2% (V_R=4.5, 8V)			
KV1276M	30	445.0 20.0	170.0	505.0 26.5	1 4 8	18.3	19.0		1/8	200	SOP-8	2.5% (V_R=1V) 3% (V_R=4,8V)		●	●
KV1296M	30	620.0 30.0	165.0	720.0 44.0	1 4.5 8	16.0	17.0		1/8	200	SOP-8	2.5% (V_R=1V) 3.3% (V_R=4.5,8V)		●	●
KV1298BM	30	600.0 24.0		670.0 34.0	1 8	17.0			1/8		SSOP10	2.5% (V_R=1V) 3.5% (V_R=8V)		●	●
KV1520	20	335.0 100.0 14.0	360.0 15.9	395.0 17.8	1 3 6.5	20.0			1/6.5	200	SOT23L-3	1% (V_R=1V) 2% (V_R=3V) 2% (V_R=6.5V)		●	●
KV1520NT	20	335.0 100.0 14.0	360.0 15.9	395.0 17.8	1 3 6.5	20.0			1/6.5	200	TO92-3	1% (V_R=1V) 2% (V_R=3V) 2% (V_R=6.5V)			●
KV1530	35	450.0 150.0 30.0	490.0 175.0 39.0 24.0	530.0 200.0 48.0	1 3.5 7 9	3.5 12.0		6.3	3.5/7 1/9	250	SOT23-3			●	●
KV1555	30	400.0 21.0	429.0 65.0 23.5	458.0 26.0	1 3 4.5	16.5	18.3	20.0	1/4.5	200	SOT23L-3	2% (V_R=1V) 3% (V_R=3,4.5V)		●	●
KV1555NT	30	400.0 21.0	429.0 65.0 23.5	458.0 26.0	1 3 4.5	16.5	18.3	20.0	1/4.5	200	TO92-3	2% (V_R=1V) 3% (V_R=3,4.5V)			●
KV1556A-1	30	400.0 21.0	429.0 65.0 23.5	458.0 26.0	1 3 4.5	16.5	18.3	20.0	1/4.5	200	CB1-2	2% (V_R=1V) 3% (V_R=3,4.5V)			
KV1560	16	428.0 20.0	100.0	506.0 27.5	1 4.5 8	17.0			1/8	200	SOT23L-3	1% (V_R=1V) 2% (V_R=4.5,8V)		●	●
KV1560NT	16	428.0 20.0	100.0	506.0 27.5	1 4.5 8	17.0			1/8	200	TO92-3	1% (V_R=1V) 2% (V_R=4.5,8V)			●
KV1561 A-1	16	410.0 20.0	100.0	506.0 27.5	1 4.5 8	17.0			1/8	200	CB1-2				
KV1561 A-2	16	410.0 20.0	100.0	506.0 27.5	1 4.5 8	17.0			1/8	200	CB2-4	1% (V_R=1V) 2% (V_R=4.5,8V)			
KV1561 A-3	16	410.0 20.0	100.0	506.0 27.5	1 4.5 8	17.0			1/8	200	CB3-6	1.5% (V_R=1V) 2.5% (V_R=4.5,8V)			
KV1562M	20	428.0 20.0	100.0	506.0 27.0	1 4.5 8	17.0			1/8	200	SOP-8	1.2% (V_R=1V) 2.2% (V_R=4.5,8V)		●	●
KV1563M	20	428.0 20.0	100.0	506.0 27.0	1 4.5 8	17.0			1/8	200	SOP-8	1.1% (V_R=1V) 2.1% (V_R=4.5,8V)		●	●
KV1563BM	20	428.0 20.0	100.0	506.0 27.0	1 4.5 8	17.0			1/8	200	SOP-8	2% (V_R=1V) 3% (V_R=4.5,8V)		●	●
KV1590	30	433.0 21.0	470.0 150.0 45.0 24.0	511.0 27.0	1 3 5 6.5	17.0	17.5		1/6.5	200	SOT23L-3	1% (V_R=1V) 2% (V_R=3,6.5V)		●	●

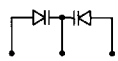
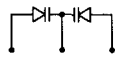
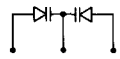
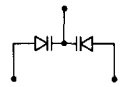
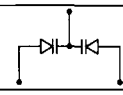
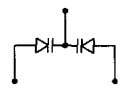
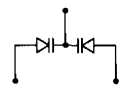
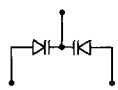
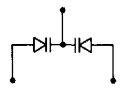
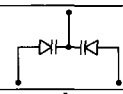
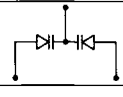
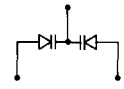
Variable capacitance diodes for AM tuning AM用電圧可変容量ダイオード

Part number	V_R Max.	Capacitance (pF)				Capacitance ratio				Q Min. 1V 1MHz	Package	C tolerance ΔC Max.	Pin layout.	Surface mounting	Taping
		Min.	Typ.	Max.	V_R (V)	Min.	Typ.	Max.	V_R (V)						
KV1590NT	30	433.0 150.0 45.0 24.0	470.0 150.0 45.0 24.0	511.0 27.0	1 3 5 6.5	17.0	17.5		1/6.5	200	TO92-3	1% (V_R=1V) 2% (V_R=3,6.5V)			●
KV1591 A-2	30	433.0 150.0 45.0 24.0	470.0 150.0 45.0 24.0	511.0 27.0	1 3 5 6.5	17.0	17.5		1/6.5	200	CB2-4	1% (V_R=1V) 2% (V_R=3,6.5V)			
KV1591 A-3	30	433.0 150.0 45.0 24.0	470.0 150.0 45.0 24.0	511.0 27.0	1 3 5 6.5	17.0	17.5		1/6.5	200	CB3-6	1% (V_R=1V) 2% (V_R=3,6.5V)			
KV1593BM	30	433.0 150.0 45.0 24.0	470.0 150.0 45.0 24.0	511.0 27.0	1 3 5 6.5	17.0	17.5		1/6.5	200	SOP-8	2% (V_R=1V) 3% (V_R=3,6.5V)		●	●

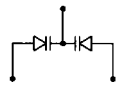
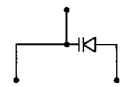
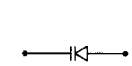
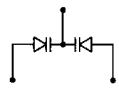
Variable capacitance diodes for FM tuning FM用電圧可変容量ダイオード

Part number	V_R Max.	Capacitance (pF)				Capacitance ratio				Rs Max. (Ω)	Package	C tolerance ΔC Max.	Pin layout.	Surface mounting	Taping
		Min.	Typ.	Max.	V_R (V)	Min.	Typ.	Max.	V_R (V)						
KV1300NT	18	69.13 57.71 33.56 23.38	74.37	79.61 64.63 39.18 27.29	2 3 6 8	2.1	2.35	2.6	3/8	0.5 3V 100MHz	TO92-3				●
KV1310A-2	18	41.40 26.26 19.13 16.01		46.16 34.99 25.48 21.32	2 4 6 8	2.0		2.6	2/8	0.5 2V 70MHz	CB2-6	3% (V_R=2,4,6,8V)			
KV1310A-3	18	41.40 26.26 19.13 16.01		46.16 34.99 25.48 21.32	2 4 6 8	2.0		2.6	2/8	0.5 2V 70MHz	CB3-9	3% (V_R=2,4,6,8V)			
KV1310NT	18	41.33 26.49 19.24 16.05		46.29 35.06 25.46 21.25	2 4 6 8	2.2		2.42	2/8	0.5 2V 70MHz	TO92-3				●
KV1320N	30	39.79 24.25 17.32 13.93		46.16 28.70 20.50 16.49	7 13 19 25	2.57	2.8	3.03	7/25	0.5 7V 70MHz	TO92-3				
KV1330A-1	18	69.30 43.05 25.20 15.35		78.80 56.30 34.30 20.10	2 4 6 9	3.7		5.0	2/9	0.5 2V 70MHz	CB1-3				
KV1330A-2	18	69.30 43.05 25.20 15.35		78.80 56.30 34.30 20.10	2 4 6 9	3.7		5.0	2/9	0.5 2V 70MHz	CB2-6	3% (V_R=2,4,6,9V)			
KV1330NT	18	69.14 43.09 25.05 15.44		77.43 56.24 34.57 20.10	2 4 6 9	3.7		5.0	2/9	0.5 2V 70MHz	TO92-3				●

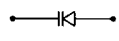
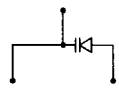
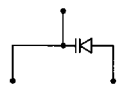
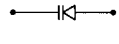
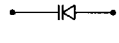
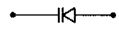
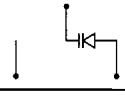
Variable capacitance diodes for FM tuning FM用電圧可変容量ダイオード

Part number	V_R Max.	Capacitance (pF)				Capacitance ratio				Rs Max. (Ω)	Package	C tolerance ΔC Max.	Pin layout.	Surface mounting	Taping
		Min.	Typ.	Max.	V_R (V)	Min.	Typ.	Max.	V_R (V)						
KV1350NT	18	59.15 17.67 10.77	62.50	65.90 23.54 13.26	1 6 9	4.6			1/9	Q Min:60 3V 100MHz	TO92-3				●
KV1360NT	18	86.10 13.90	92.00 58.00 35.00 23.00 16.00	98.00 18.20	1 2 3 4.5 6.5	4.7			1/6.5	0.6 1.5V 100MHz	TO92-3				●
KV1362A-1	18	86.10 13.90	92.00 58.00 35.00 23.00 16.00	98.00 18.20	1 2 3 4.5 6.5	4.7			1/6.5	0.6 1.5V 100MHz	CB1-2				
KV1370NT	18	65.80 12.00	70.00 43.00 24.00 13.50 12.50	74.20 14.80	1 2 3 4.5 5	5.0			1/5	0.5 1.5V 100MHz	TO92-3				●
KV1372A-1	18	65.80 12.00	70.00 43.00 24.00 13.50 12.50	74.20 14.80	1 2 3 4.5 5	5.0			1/5	0.5 1.5V 100MHz	CB1-2				
KV1382A-1	18	131.00 69.00 16.00		171.00 101.00 23.00	2 4 8	6.5		9.5	2/8	1.0 3V 70MHz	CB1-2				
KV1400	18	69.13 57.71 33.56 23.38	74.37	79.61 64.63 39.18 27.29	2 3 6 8	2.1	2.35	2.6	3/8	0.5 3V 100MHz	SOT23-3			●	●
KV1405	17	132.00 46.00	148.00 52.00	164.00 58.00	2 8					0.5 3V 100MHz	SOT23-3			●	●
KV1410	18	41.33 26.46 19.24 16.05		46.29 35.06 25.46 21.25	2 4 6 8	2.0		2.6	2/8	0.5 2V 70MHz	SOT23-3			●	●
KV1420	30	39.79 24.25 17.32 13.93		46.16 28.70 20.50 16.49	7 13 19 25	2.57	2.8	3.03	7/25	0.5 7V 70MHz	SOT23-3			●	●
KV1430	18	69.14 43.09 25.05 15.44		77.43 56.24 34.57 20.10	2 4 6 9	3.7		5.0	2/9	0.5 2V 70MHz	SOT23-3			●	●
KV1435	16	68.86 42.93 26.39 16.91		77.74 56.46 36.69 22.25	2 4 6 9	3.3		4.6	2/9	0.4 2V 70MHz	SOT23-3			●	●
KV1440	18	43.00 35.40 26.60		47.60 	2 4 8	1.23 1.65		1.33 1.75	2/4 2/8	Q Min:100 3V 100MHz	SOT23-3			●	●
KV1450	18	59.15 17.67 10.77	62.50	65.90 23.54 13.26	1 6 9	4.6			1/9	Q Min:60 3V 100MHz	SOT23-3			●	●
KV1460	18	86.10 13.90	92.00 58.00 35.00 23.00 16.00	98.00 18.20	1 2 3 4.5 6.5	4.7			1/6.5	0.6 1.5V 100MHz	SOT23-3			●	●

Variable capacitance diodes for FM tuning FM用電圧可変容量ダイオード

Part number	V_R Max.	Capacitance (pF)				Capacitance ratio				Rs Max. (Ω)	Package	C tolerance ΔC Max.	Pin layout.	Surface mounting	Taping
		Min.	Typ.	Max.	V_R (V)	Min.	Typ.	Max.	V_R (V)						
KV1470	18	65.80 12.00	70.00 43.00 24.00 13.50 12.50	74.20 14.80	1 2 3 4.5 5	5.0			1/5	0.5 1.5V 100MHz	SOT23-3			●	●
KV1471	18	32.65 6.20	35.30 22.00 12.00 7.70 6.50	37.87 9.20	1 2 3 4.5 5	5.0			1/5	1.0 1.5V 100MHz	SOT23-3			●	●
KV1471E	18	30.16 6.20	35.60 22.00 12.00 7.70 6.50	40.99 9.20	1 2 3 4.5 5	5.0			1/5	1 1.5V 100MHz	URD			●	●
KV1488	18	131.00 64.00 16.00		161.50 101.00 23.00	2 4 8	6.5			2/8	1.0 3V 70MHz	SOT23-3			●	●

Variable capacitance diodes for communications equipment 通信機用電圧可変容量ダイオード

Part number	V_R Max.	Capacitance (pF)				Capacitance ratio				Rs Max. (Ω)	Package	C tolerance ΔC Max.	Pin layout.	Surface mounting	Taping
		Min.	Typ.	Max.	V_R (V)	Min.	Typ.	Max.	V_R (V)						
KV1811E	25	19.51 2.14	21.50 12.00 4.00 2.50	23.55 2.92	1 2 4 8		7.8		1/8	1.8 8pF 470MHz	URD			●	●
KV1812	25	14.50 1.64	16.00 9.00 3.00 1.94	17.50 2.24	1 2 4 8	7.4			1/8	2.1 6pF 470MHz	SOT23-3			●	●
KV1823	29	 7.50 2.05	10.50 8.05 5.40 3.60 2.20	 8.60 2.35	1 2 4 8 25	4.2			1/25	1.0 7pF 470MHz	SOT23-3			●	●
KV1832C	28	12.50 5.95 3.20	16.50 10.20 4.30	20.50 14.45 5.45	1 2 4					0.7 7pF 470MHz	SRD			●	●
KV1832E	28	15.40 8.50 3.60	16.60 10.20 4.30	17.90 11.90 5.05	1 2 4	3.4			1/4	0.7 7pF 470MHz	URD			●	●
KV1841E	18	13.50 6.80	14.50 7.50	15.5 8.30	2 6	1.66			1/6	0.3 11pF 470MHz	URD			●	●
KV1851	18	20.00 4.90 2.10	28.00	36.00 9.10 3.90	1 4 10	6.0			1/10		SOT23-3			●	●
KV1851A-1	18	20.00 4.90 2.10	28.00	36.00 9.10 3.90	1 4 10	6.0			1/10		CB1-2				

NOTE: ● The value in "VR (Max.)" is absolute maximum range.
● Do not use NC terminal for any purpose.
※ ここでの逆方向電圧は、絶対最大定格のそれを示す。
※ NC端子は内部で接続されている場合があります。中継等に使用しないでください。