DIP Power Inductor /

◆ Feature

1.High current rating
2.High frequency range up to 1.0 MHz.
3.Very low DC resistance.
4.Shielded construction.
5.All lead-free.(RoHS)

◆ Application

1.Motherboards for laptop and desktop computers.
2.DC/DC converter in distributed power systems or VRM applications.
3.Inductor for general purpose use.

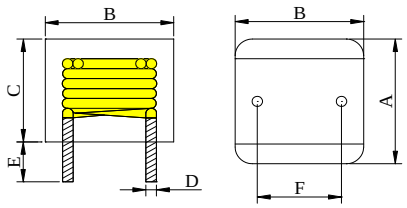
◆ Configurations

KQ08	V	C	-	1R0	M
(1)	(2)	(3)		(4)	(5)

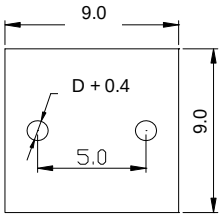
(1) Series code
(2) Pin location (parallel for "V", diagonal for "X")
(3) Material code
(4) Inductance: 1R0 = 1.0 µH
(5) Inductance tolerance: M= ±20%

◆ KQ08VC Series:

Physical Dimension: [Unit: mm]



Recommended Layout: [Unit: mm]

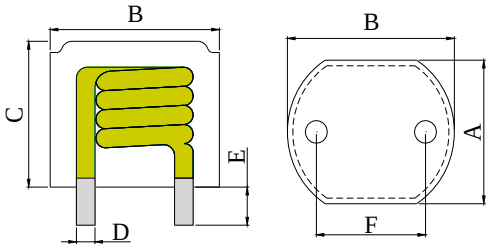


P/N	L0 Inductance	A	B	C	D	E	F	DCR (mΩ)		Heat Rating Current	Saturation Current
	µH ±20%	mm	mm	mm	mm	mm	mm	[Typical]	[Max]	Idc (Amp)	Isat (Amp)
	@0A	± 0.5	± 0.5	[Max]	± 0.2	± 0.5	± 0.4			Typical	Typical
KQ08VC-R00M	0.10MAX	8.50	8.50	8.00	0.90	3.40	5.00	0.43	0.52	N/A	N/A
KQ08VC-0R1M	0.10	8.50	8.50	8.00	0.90	3.40	5.00	0.90	1.10	29.0	50.0
KQ08VC-0R33M	0.33	8.50	8.50	8.00	0.90	3.40	5.00	1.20	1.45	24.5	38.0
KQ08VC-0R36M	0.36	8.50	8.50	8.00	0.90	3.40	5.00	1.20	1.45	24.5	30.0
KQ08VC-0R47M	0.47	8.50	8.50	8.00	0.90	3.40	5.00	2.00	2.40	19.0	30.0
KQ08VC-0R56M	0.56	8.50	8.50	8.00	0.90	3.40	5.00	2.00	2.40	19.0	28.0
KQ08VC-0R68M	0.68	8.50	8.50	8.00	0.80	3.40	5.00	3.00	3.60	15.5	25.0
KQ08VC-0R8M	0.80	8.50	8.50	8.00	0.80	3.40	5.00	3.50	4.10	15.5	23.0
KQ08VC-1R0M	1.00	8.50	8.50	8.00	0.80	3.40	5.00	3.50	4.10	14.5	21.0
KQ08VC-1R2M	1.20	8.50	8.50	8.00	0.80	3.40	5.00	3.50	4.10	14.5	21.0
KQ08VC-1R5M	1.50	8.50	8.50	8.00	0.70	3.40	5.00	5.80	7.00	11.5	18.0
KQ08VC-2R2M	2.20	8.50	8.50	8.00	0.70	3.40	5.00	7.50	9.00	10.0	16.0
KQ08VC-2R8M	2.80	8.50	8.50	8.00	0.70	3.40	5.00	8.50	10.20	9.5	15.0
KQ08VC-3R3M	3.30	8.50	8.50	8.00	0.70	3.40	5.00	9.00	11.00	9.2	14.0
KQ08VC-4R7M	4.70	8.50	8.50	8.00	0.70	3.40	5.00	12.00	14.50	8.0	12.0

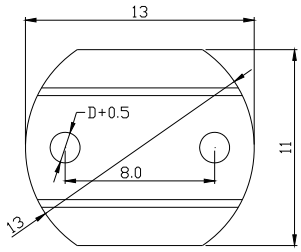
Test condition @ 200KHz, 0.1Vrms, 25°C ambient
Idc: DC current(A) that will cause an approximate ΔT of 40℃
Isat: DC current(A) that will cause Lo to drop approximately 20%
Operating Temperature Range: -25℃ to +125℃

◆ KQ10VC Series:

Physical Dimension: [Unit: mm]



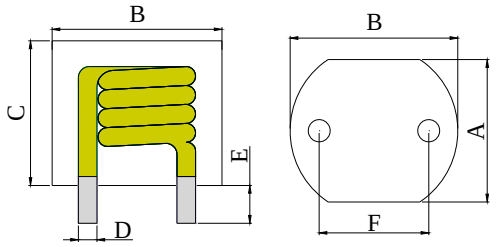
Recommended Layout: [Unit: mm]



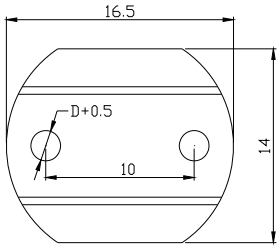
P/N	L0 Inductance	A	B	C	D	E	F	DCR (mΩ)		Heat Rating Current	Saturation Current
	μH ±20%	mm	mm	mm	mm	mm	mm	[Typical]	[Max]	Idc (Amp)	Isat (Amp)
	@0A	± 0.5	± 0.5	[Max]	± 0.2	± 0.5	± 0.5			Typical	Typical
KQ10VC-0R22M	0.22	10.50	12.50	7.50	1.40	3.40	8.00	0.50	0.60	38.0	56.0
KQ10VC-0R25M	0.25	10.50	12.50	8.60	1.40	3.40	8.00	0.50	0.60	38.0	50.0
KQ10VC-0R27M	0.27	10.50	12.50	8.60	1.40	3.40	8.00	0.50	0.60	38.0	49.0
KQ10VC-0R3M	0.30	10.50	12.50	8.60	1.40	3.40	8.00	0.70	0.85	33.0	48.0
KQ10VC-0R33M	0.33	10.50	12.50	8.60	1.40	3.40	8.00	0.70	0.85	33.0	48.0
KQ10VC-0R39M	0.39	10.50	12.50	8.60	1.40	3.40	8.00	0.70	0.85	33.0	45.0
KQ10VC-0R47M	0.47	10.50	12.50	10.00	1.50	3.40	8.00	0.85	1.00	30.0	40.0
KQ10VC-0R56M	0.56	10.50	12.50	10.00	1.50	3.40	8.00	0.85	1.00	30.0	40.0
KQ10VC-0R68M	0.68	10.50	12.50	10.00	1.50	3.40	8.00	0.85	1.00	30.0	40.0
KQ10VC-0R8M	0.80	10.50	12.50	10.00	1.40	3.40	8.00	1.30	1.50	26.0	36.0
KQ10VC-1R0M	1.00	10.50	12.50	10.00	1.20	3.40	8.00	1.75	2.10	21.0	32.0
KQ10VC-1R2M	1.20	10.50	12.50	10.00	1.20	3.40	8.00	1.75	2.10	21.0	32.0
KQ10VC-1R5M	1.50	10.50	12.50	10.00	1.00	3.40	8.00	3.00	3.60	16.0	30.0
KQ10VC-2R0M	2.00	10.50	12.50	10.00	1.00	3.40	8.00	3.85	4.60	15.0	24.0
KQ10VC-2R2M	2.20	10.50	12.50	10.00	1.00	3.40	8.00	4.30	5.20	13.6	24.0
KQ10VC-2R8M	2.80	10.50	12.50	10.00	0.90	3.40	8.00	5.60	6.70	12.3	20.0
KQ10VC-3R3M	3.30	10.50	12.50	10.00	0.80	3.40	8.00	6.80	8.10	11.2	16.0
KQ10VC-4R7M	4.70	10.50	12.50	10.00	0.80	3.40	8.00	8.80	10.50	10.0	15.0

◆ KQ13VC Series:

Physical Dimension: [Unit: mm]



Recommended Layout: [Unit: mm]

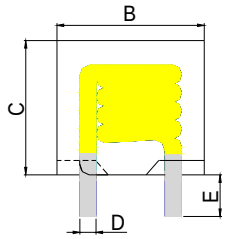


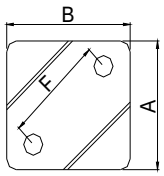
P/N	L0 Inductance	A	B	C	D	E	F	DCR (mΩ)		Heat Rating Current	Saturation Current
	μH ±20%	mm	mm	mm	mm	mm	mm	[Typical]	[Max]	Idc (Amp)	Isat (Amp)
	@0A	± 0.5	± 0.5	[Max]	± 0.2	± 0.5	± 0.5			Typical	Typical
KQ13VC-0R33M	0.33	13.00	15.50	9.50	1.70	3.40	10.00	0.60	0.70	37.0	60.0
KQ13VC-0R39M	0.39	13.00	15.50	9.50	1.70	3.40	10.00	0.60	0.70	37.0	54.0
KQ13VC-0R47M	0.47	13.00	15.50	9.50	1.70	3.40	10.00	0.65	0.75	36.0	50.0
KQ13VC-0R56M	0.56	13.00	15.50	9.50	1.70	3.40	10.00	0.65	0.75	36.0	50.0
KQ13VC-0R68M	0.68	13.00	15.50	11.00	1.70	3.40	10.00	0.78	0.94	34.0	48.0
KQ13VC-0R8M	0.80	13.00	15.50	11.00	1.70	3.40	10.00	0.86	1.00	32.0	45.0
KQ13VC-0R9M	0.90	13.00	15.50	11.00	1.70	3.40	10.00	0.86	1.00	32.0	45.0
KQ13VC-1R0M	1.00	13.00	15.50	11.00	1.50	3.40	10.00	1.15	1.40	27.0	40.0
KQ13VC-1R2M	1.20	13.00	15.50	11.00	1.50	3.40	10.00	1.20	1.45	26.0	40.0
KQ13VC-1R5M	1.50	13.00	15.50	11.00	1.50	3.40	10.00	1.50	1.80	23.5	35.0
KQ13VC-2R2M	2.20	13.00	15.50	11.00	1.30	3.40	10.00	2.10	2.50	20.0	32.0
KQ13VC-3R3M	3.30	13.00	15.50	11.00	1.20	3.40	10.00	3.10	3.70	16.5	30.0
KQ13VC-4R7M	4.70	13.00	15.50	11.00	1.00	3.40	10.00	6.00	7.20	12.0	24.0
KQ13VC-100M	10.00	13.00	15.50	11.00	1.00	3.40	10.00	10.00	12.00	9.0	12.0
KQ13VC-220M	22.00	13.00	15.50	11.00	0.80	3.40	10.00	20.00	24.00	6.5	9.5
KQ13VC-330M	33.00	13.00	15.50	11.00	0.65	3.40	10.00	36.00	43.00	5.0	8.0

Test condition @ 200KHz, 0.1Vrms, 25°C ambient
Idc: DC current(A) that will cause an approximate ΔT of 40℃
Isat: DC current(A) that will cause Lo to drop approximately 20%
Operating Temperature Range: -25℃ to +125℃

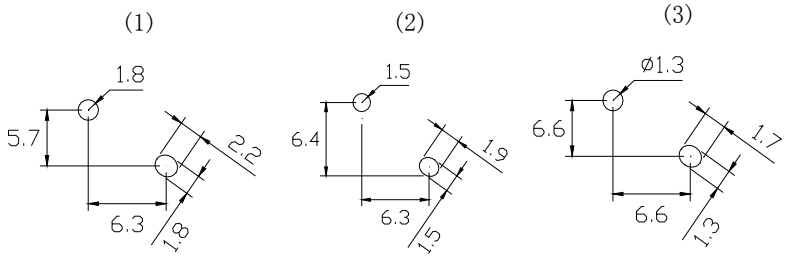
◆ KQ11XC Series:

Physical Dimension: [Unit: mm]





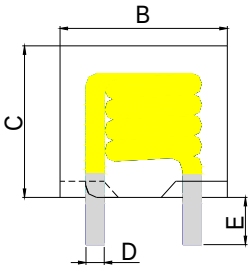
Recommended Layout: [Unit: mm]

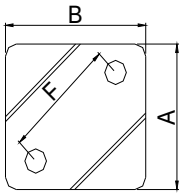


P/N	L0 Inductance	A	B	C	D	E	F	DCR (mΩ)		Heat Rating Current	Saturation Current
	µH ±20%	mm	mm	mm	mm	mm	mm	[Typical]	[Max]	Idc (Amp)	Isat (Amp)
	@0A	± 0.5	± 0.5	[Max]	± 0.2	± 0.5	± 0.5			Typical	Typical
KQ11XC-0R25M	0.25	11.50	11.50	10.00	1.50	3.40	8.5 (1)	0.50	0.60	42.0	60.0
KQ11XC-0R27M	0.27	11.50	11.50	10.00	1.50	3.40	8.5 (1)	0.65	0.78	38.0	60.0
KQ11XC-0R3M	0.30	11.50	11.50	10.00	1.50	3.40	8.5 (1)	0.65	0.78	38.0	60.0
KQ11XC-0R39M	0.39	11.50	11.50	10.00	1.50	3.40	8.5 (1)	0.65	0.78	38.0	50.0
KQ11XC-0R47M	0.47	11.50	11.50	10.00	1.50	3.40	8.5 (1)	0.65	0.78	38.0	50.0
KQ11XC-0R56M	0.56	11.50	11.50	10.00	1.50	3.40	8.5 (1)	0.85	1.00	32.0	50.0
KQ11XC-0R6M	0.60	11.50	11.50	10.00	1.50	3.40	8.5 (1)	0.85	1.00	32.0	45.0
KQ11XC-0R68M	0.68	11.50	11.50	10.00	1.50	3.40	8.5 (1)	0.85	1.00	32.0	40.0
KQ11XC-0R8M	0.80	11.50	11.50	10.00	1.40	3.40	8.5 (1)	1.20	1.45	27.0	40.0
KQ11XC-1R0M	1.00	11.50	11.50	10.00	1.20	3.40	9.0 (2)	1.50	1.80	25.0	40.0
KQ11XC-1R2M	1.20	11.50	11.50	10.50	1.20	3.40	9.0 (2)	2.00	2.40	21.0	40.0
KQ11XC-1R5M	1.50	11.50	11.50	10.50	1.20	3.40	9.0 (2)	2.00	2.40	21.0	35.0
KQ11XC-1R8M	1.80	11.50	11.50	10.50	1.00	3.40	9.3 (3)	3.50	4.20	15.0	35.0
KQ11XC-2R0M	2.00	11.50	11.50	10.50	1.00	3.40	9.3 (3)	3.50	4.20	16.0	30.0
KQ11XC-2R2M	2.20	11.50	11.50	10.50	1.00	3.40	9.3 (3)	3.50	4.20	16.0	30.0

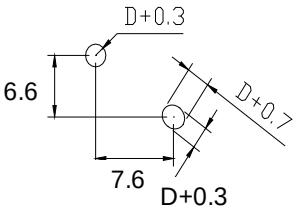
◆ KQ12XC Series:

Physical Dimension: [Unit: mm]





Recommended Layout: [Unit: mm]



P/N	L0 Inductance	A	B	C	D	E	F	DCR (mΩ)		Heat Rating Current	Saturation Current
	µH ±20%	mm	mm	mm	mm	mm	mm	[Typical]	[Max]	Idc (Amp)	Isat (Amp)
	@0A	± 0.5	± 0.5	[Max]	± 0.2	± 0.5	± 0.5			Typical	Typical
KQ12XC-0R22M	0.22	12.00	13.00	9.00	1.70	3.40	10.00	0.40	0.50	45.0	60.0
KQ12XC-0R33M	0.33	12.00	13.00	9.00	1.70	3.40	10.00	0.55	0.70	40.0	56.0
KQ12XC-0R39M	0.39	12.00	13.00	9.00	1.70	3.40	10.00	0.55	0.70	39.0	55.0
KQ12XC-0R47M	0.47	12.00	13.00	9.00	1.70	3.40	10.00	0.60	0.70	38.0	54.0
KQ12XC-0R56M	0.56	12.00	13.00	9.00	1.70	3.40	10.00	0.60	0.70	38.0	52.0
KQ12XC-0R6M	0.60	12.00	13.00	10.00	1.70	3.40	10.00	0.80	1.00	35.0	50.0
KQ12XC-0R68M	0.68	12.00	13.00	10.00	1.70	3.40	10.00	0.80	1.00	35.0	50.0
KQ12XC-0R8M	0.80	12.00	13.00	10.00	1.70	3.40	10.00	0.80	1.00	33.0	48.0
KQ12XC-1R0M	1.00	12.00	13.00	10.00	1.50	3.40	10.00	1.10	1.30	30.0	40.0
KQ12XC-1R2M	1.20	12.00	13.00	10.00	1.50	3.40	10.00	1.20	1.45	28.0	40.0
KQ12XC-1R5M	1.50	12.00	13.00	11.00	1.50	3.40	10.00	1.45	1.75	25.0	38.0
KQ12XC-2R0M	2.00	12.00	13.00	11.00	1.30	3.40	10.00	2.65	3.20	18.0	35.0
KQ12XC-2R2M	2.20	12.00	13.00	11.00	1.20	3.40	10.00	2.65	3.20	18.0	35.0

Test condition @ 200KHz, 0.1Vrms, 25°C ambient

Idc: DC current(A) that will cause an approximate ΔT of 40℃

Isat: DC current(A) that will cause Lo to drop approximately 20%

Operating Temperature Range: -25℃ to +125℃