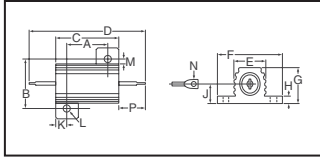




KAL Series – Aluminum Housed Axial Lead Wire Wound Resistors



- Features:**
- Aluminum housing for maximum heat dissipation
 - Complete welded construction
 - 10 – 50W tinned copper terminals
 - Temperature Coefficient: ±100ppm below 0.1Ω, ±50ppm from 0.1Ω – 9.9Ω, ±30ppm from 10Ω – 49Ω, ±20ppm above 50Ω



Type	Dimensions in mm (maximum)													
	A	B	C	D	E	F	G	H	J	K	L	M	N	P
KAL10	14.3	15.9	19.0	34.9	10.7	20.3	9.9	1.9	4.8	2.4	2.4	2.6	2.2	7.9
KAL25	18.3	19.8	27.0	49.2	14.0	27.4	13.9	2.2	6.6	4.4	3.2	2.9	2.2	11.1
KAL50	39.7	21.4	50.0	70.6	16.0	29.0	15.5	2.2	7.6	5.0	3.2	2.7	2.2	10.4

KAL10			KAL25			KAL50		
Value (Code)	Value (Code)	Value (Code)	Value (Code)	Value (Code)	Value (Code)	Value (Code)	Value (Code)	Value (Code)
1 (1R00)	250 (250R)	1 (1R00)	20 (20R0)	1K (1K00)	1K (1R00)	1 (1R00)	10 (10R0)	50 (50R0)
5 (5R00)	1K (1K00)	2 (2R00)	25 (25R0)	1.5K (1K50)	1.5 (1R50)	15 (15R0)	100 (100R)	100 (100R)
10 (10R0)	2.5K (2K50)	3 (3R00)	50 (50R0)	3K (3K00)	2 (2R00)	20 (20R0)	300 (300R)	300 (300R)
20 (20R0)	5K (5K00)	5 (5R00)	75 (75R0)	10K (10K0)	3 (3R00)	25 (25R0)	1K (1K00)	1K (1K00)
50 (50R0)		10 (10R0)	100 (100R)		5 (5R00)	30 (30R0)	1.5K (1K50)	
		15 (15R0)	250 (250R)		6 (6R00)	35 (35R0)		

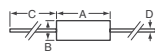
Resistance Range (Ω)	Wattage	Tolerance	Dielectric Withstanding Voltage	Digi-Key Part No.‡	Price Each	
					1	50
1 – 1K	12.5	1%	1,000	KAL10FB(Code)-ND	3.94	3.10
2.5K – 5K	12.5	1%	1,000	KAL10FB(Code)-ND	4.10	3.22
1 – 3K	25	1%	2,500	KAL25FB(Code)-ND	4.65	3.88
10K	25	1%	2,500	KAL25FB(Code)-ND	5.07	4.23
1 – 1.5K	50	1%	2,500	KAL50FB(Code)-ND	5.49	4.58

‡ For complete part number, substitute the corresponding code from the Resistance Value Chart for (Code).

MR Series – Low Resistance Value Molded 2 Leads Resistors



- Features:**
- Metal element resistors
 - Excellent load life stability
 - Inherently non-inductive
 - Tinned copper leads
 - Low temperature coefficient
 - High power to size ratio
 - Molded bodies for exceptional automated placement



Type	Dimensions (mm)			
	A	B	C	D
MR3	14.2	5.2	34.9	0.81
MR5	23.5	8.4	34.9	0.91

Resistance Value Chart			
Value (Code)	Value (Code)	Value (Code)	Value (Code)
0.005 (5L00)	0.02 (20L0)	0.05 (50L0)	0.075 (75L0)
0.01 (10L0)	0.025 (25L0)	0.05 (50L0)	0.1 (R100)

Electrical Specifications: • Max. Voltage: 500V • Temperature Coefficient: 50 – 400ppm/°C

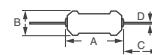
Resistance Range (Ω)	Wattage	Tolerance	Digi-Key Part No.‡	Cut Tape Price Each			Digi-Key Part No.‡	Tape and Reel Pricing			
				1	10	50		500	750	2,500	3,750
0.005 – 0.1	3	1%	MR3FT(Code)CT-ND	1.87	1.73	1.49	MR3FT(Code)TR-ND	—	520.61	—	622.34
0.005 – 0.1	5	1%	MRSFT(Code)CT-ND	2.20	2.03	1.75	MRSFT(Code)TR-ND	450.56	—	732.16	—

‡ For complete part number, substitute the corresponding code from the Resistance Value Chart for (Code).

CF and CD Series – 1/4 and 1/2 Watt Carbon Film Resistors



- CF Series Features:** • Ideal for commercial / industrial applications • Flame retardant coating • Auto sequencing / insertion compatible
- CD Series Features:** • Ideal for crossovers or jumpers on circuit boards with auto-insertion capability • High current rating, 3A • Zero ohms



Type	Dimensions (mm)			
	A	B	C	D
CF1/4	6.5 ±0.5	2.3 ±0.2	28.0 ±3.0	0.56 ±0.05
CF1/2	8.5 ±0.5	2.7 ±0.5	28.0 ±3.0	0.6 ±0.05
CD	6.0 ±0.3	2.3 ±0.2	28.0 ±2.0	0.55 ±0.03

Resistance Value Chart for CF1/4 and CF1/2 Series

0 (0R00)	24 (24R0)	62 (62R0)	220 (220R)	510 (510R)	1.2K (1K20)	3K (3K00)	6.8K (6K80)	27K (27K0)	82K (82K0)	270K (270K)	1.2M (1M20)
1 (1R00)	27 (27R0)	68 (68R0)	240 (240R)	560 (560R)	1.3K (1K30)	3.3K (3K30)	7.5K (7K50)	30K (30K0)	91K (91K0)	330K (330K)	2.2M (2M20)
10 (10R0)	30 (30R0)	75 (75R0)	270 (270R)	620 (620R)	1.5K (1K50)	3.6K (3K60)	8.2K (8K20)	33K (33K0)	100K (100K)	390K (390K)	3.3M (3M30)
12 (12R0)	33 (33R0)	82 (82R0)	300 (300R)	680 (680R)	1.6K (1K60)	3.9K (3K90)	10K (10K0)	39K (39K0)	120K (120K)	430K (430K)	3.9M (3M90)
15 (15R0)	39 (39R0)	100 (100R)	330 (330R)	750 (750R)	1.8K (1K80)	4.3K (4K30)	12K (12K0)	47K (47K0)	150K (150K)	470K (470K)	4.7M (4M70)
16 (16R0)§	43 (43R0)	120 (120R)	360 (360R)	820 (820R)	2K (2K00)	4.7K (4K70)	15K (15K0)	56K (56K0)	180K (180K)	510K (510K)	5.1M (5M10)
18 (18R0)	47 (47R0)	150 (150R)	390 (390R)	910 (910R)	2.2K (2K20)	5.1K (5K10)	18K (18K0)	62K (62K0)	200K (200K)	560K (560K)	5.6M (5M60)
20 (20R0)	51 (51R0)	180 (180R)	430 (430R)	1K (1K00)	2.4K (2K40)	5.6K (5K60)	20K (20K0)	68K (68K0)	220K (220K)	680K (680K)	10M (10M0)
22 (22R0)	56 (56R0)	200 (200R)	470 (470R)	1.1K (1K10)	2.7K (2K70)	6.2K (6K20)	22K (22K0)	75K (75K0)	240K (240K)	1M (1M00)	—

Additional Resistance Values for CF1/4 Series

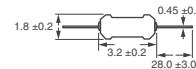
36 (36R0)	130 (130R)	11K (11K0)	24K (24K0)	51K (51K0)	160K (160K)	620K (620K)	910K (910K)	1.5M (1M50)	2.4M (2M40)	4.3M (4M30)	8.2M (8M20)
91 (91R0)	160 (160R)	13K (13K0)	36K (36K0)	110K (110K)	300K (300K)	750K (750K)	1.1M (1M10)	1.8M (1M80)	2.7M (2M70)	6.8M (6M80)	9.1M (9M10)
110 (110R)	9.1K (9K10)	16K (16K0)	43K (43K0)	130K (130K)	360K (360K)	820K (820K)	1.3M (1M30)	2M (2M00)	3M (3M00)	7.5M (7M50)	—

Resistance Range (Ω)	Wattage	Tolerance	Digi-Key Part No.‡	Cut Tape Pricing			Digi-Key Part No.‡	Tape and Reel Pricing 5,000
				10	50	100		
0	—	—	CD14ZT0R00CT-ND	.89	2.44	3.70	CD14ZT0R00TR-ND	8.03/M
1 – 10M	0.25	5%	CF14JT(Code)CT-ND	.75	2.03	3.08	CF14JT(Code)TR-ND	6.69/M
1 – 10M	0.5	5%	CF12JT(Code)CT-ND	1.34	3.65	5.55	CF12JT(Code)TR-ND	12.04/M

‡ For complete part number, substitute the corresponding code from the Resistance Value Chart for (Code). § Not available in CF1/4 Series

CF Series – 1/8 Watt Carbon Film Resistors

- CF Series Features:** • Ideal for commercial / industrial applications • Flame retardant coating • Auto sequencing / insertion compatible



Resistance Value Chart

1 (1R00)	36 (36R0)	100 (100R)	300 (300R)	820 (820R)	2.4K (2K40)	6.8K (6K80)	20K (20K0)	56K (56K0)	160K (160K)	470K (470K)	1.3M (1M30)	4.7M (4M70)
10 (10R0)	39 (39R0)	110 (110R)	330 (330R)	910 (910R)	2.7K (2K70)	7.5K (7K50)	22K (22K0)	62K (62K0)	180K (180K)	510K (510K)	1.5M (1M50)	5.1M (5M10)
12 (12R0)	43 (43R0)	120 (120R)	360 (360R)	1K (1K00)	3K (3K00)	8.2K (8K20)	24K (24K0)	68K (68K0)	200K (200K)	560K (560K)	1.8M (1M80)	5.6M (5M60)
15 (15R0)	47 (47R0)	130 (130R)	390 (390R)	1.1K (1K10)	3.3K (3K30)	9.1K (9K10)	27K (27K0)	75K (75K0)	220K (220K)	620K (620K)	2M (2M00)	6.8M (6M80)
18 (18R0)	51 (51R0)	150 (150R)	430 (430R)	1.2K (1K20)	3.6K (3K60)	10K (10K0)	30K (30K0)	82K (82K0)	240K (240K)	680K (680K)	2.2M (2M20)	7.5M (7M50)
20 (20R0)	56 (56R0)	160 (160R)	470 (470R)	1.3K (1K30)	3.9K (3K90)	11K (11K0)	33K (33K0)	91K (91K0)	270K (270K)	750K (750K)	2.4M (2M40)	8.2M (8M20)
22 (22R0)	62 (62R0)	180 (180R)	510 (510R)	1.5K (1K50)	4.3K (4K30)	12K (12K0)	36K (36K0)	100K (100K)	300K (300K)	820K (820K)	2.7M (2M70)	9.1M (9M10)
24 (24R0)	68 (68R0)	200 (200R)	560 (560R)	1.6K (1K60)	4.7K (4K70)	13K (13K0)	39K (39K0)	110K (110K)	330K (330K)	910K (910K)	3M (3M00)	10M (10M0)
27 (27R0)	75 (75R0)	220 (220R)	620 (620R)	1.8K (1K80)	5.1K (5K10)	15K (15K0)	43K (43K0)	120K (120K)	360K (360K)	1M (1M00)	3.3M (3M30)	—
30 (30R0)	82 (82R0)	240 (240R)	680 (680R)	2K (2K00)	5.6K (5K60)	16K (16K0)	47K (47K0)	130K (130K)	390K (390K)	1.1M (1M10)	3.9M (3M90)	—
33 (33R0)	91 (91R0)	270 (270R)	750 (750R)	2.2K (2K20)	6.2K (6K20)	18K (18K0)	51K (51K0)	150K (150K)	430K (430K)	1.2M (1M20)	4.3M (4M30)	—

Resistance Range (Ω)	Wattage	Tolerance	Digi-Key Part No.‡	Cut Tape Pricing			Digi-Key Part No.‡	Tape and Reel Pricing 5,000
				10	50	100		
1 – 10M	0.125	5%	CF18JT(Code)CT-ND	.92	2.51	3.82	CF18JT(Code)TR-ND	8.30/M

‡ For complete part number, substitute the corresponding code from the Resistance Value Chart for (Code).

CB Series – Ceramic Housed Axial Lead Wire Wound Resistors

- Features:** • Fireproof power wirewound • High thermal conductivity



Resistance Value Chart				
Value (Code)	Value (Code)	Value (Code)	Value (Code)	Value (Code)
0.25 (R250)	1 (1R00)	5.1 (5R10)	22 (22R0)	56 (56R0)
0.3 (R300)	1.2 (1R20)	12 (12R0)	25 (25R0)	68 (68R0)
0.33 (R330)	1.5 (1R50)	15 (15R0)	30 (30R0)	75 (75R0)
0.51 (R510)	2 (2R00)	18 (18R0)	40 (40R0)	82 (82R0)
0.75 (R750)	5 (5R00)	20 (20R0)	50 (50R0)	100 (100R)

Resistance Range (Ω)	Wattage	Tolerance	Dielectric Withstanding Voltage	Digi-Key Part No.‡	Pricing	
					1	50
0.25 – 0.51, 82	5	5%	± 2%	CB5JB(Code)-ND	.35	2.72
0.75 – 75, 100	5	5%	± 2%	CB5JB(Code)-ND	.77	5.62

‡ For complete part number, substitute the corresponding code from the Resistance Value Chart for (Code).

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