

RSKT-MF1/4
RS_Stock_No: 5021254



Resistance Range (Ω)	10 Ω to 1M Ω
Dimensions	2.3 Dia. x 7.1 mm
Tolerance	$\pm 1\%$
Power Rating	0.25 W
Temperature Coefficient	± 50 ppm/ $^{\circ}$ C
Number of each resistor	20

No	Manufacturer part number	Resistance
1	MF1/4CC10R0F	10 Ω
2	MF1/4CC11R0F	11 Ω
3	MF1/4CC12R0F	12 Ω
4	MF1/4CC13R0F	13 Ω
5	MF1/4CC15R0F	15 Ω
6	MF1/4CC16R0F	16 Ω
7	MF1/4CC18R0F	18 Ω
8	MF1/4CC20R0F	20 Ω
9	MF1/4CC22R0F	22 Ω
10	MF1/4CC24R0F	24 Ω
11	MF1/4CC27R0F	27 Ω
12	MF1/4CC30R0F	30 Ω
13	MF1/4CC33R0F	33 Ω
14	MF1/4CC36R0F	36 Ω
15	MF1/4CC39R0F	39 Ω
16	MF1/4CC43R0F	43 Ω
17	MF1/4CC47R0F	47 Ω
18	MF1/4CC51R0F	51 Ω
19	MF1/4CC56R0F	56 Ω
20	MF1/4CC62R0F	62 Ω
21	MF1/4CC68R0F	68 Ω
22	MF1/4CC75R0F	75 Ω
23	MF1/4CC82R0F	82 Ω
24	MF1/4CC91R0F	91 Ω
25	MF1/4CC1000F	100 Ω
26	MF1/4CC1100F	110 Ω
27	MF1/4CC1200F	120 Ω
28	MF1/4CC1300F	130 Ω
29	MF1/4CC1500F	150 Ω
30	MF1/4CC1600F	160 Ω
31	MF1/4CC1800F	180 Ω
32	MF1/4CC2000F	200 Ω
33	MF1/4CC2200F	220 Ω
34	MF1/4CC2400F	240 Ω
35	MF1/4CC2700F	270 Ω
36	MF1/4CC3000F	300 Ω
37	MF1/4CC3300F	330 Ω
38	MF1/4CC3600F	360 Ω
39	MF1/4CC3900F	390 Ω
40	MF1/4CC4300F	430 Ω
41	MF1/4CC4700F	470 Ω
42	MF1/4CC5100F	510 Ω
43	MF1/4CC5600F	560 Ω
44	MF1/4CC6200F	620 Ω
45	MF1/4CC6800F	680 Ω
46	MF1/4CC7500F	750 Ω
47	MF1/4CC8200F	820 Ω
48	MF1/4CC9100F	910 Ω
49	MF1/4CC1001F	1 k Ω
50	MF1/4CC1101F	1.1 k Ω

No	Manufacturer part number	Resistance
51	MF1/4CC1201F	1.2 k Ω
52	MF1/4CC1301F	1.3 k Ω
53	MF1/4CC1501F	1.5 k Ω
54	MF1/4CC1601F	1.6 k Ω
55	MF1/4CC1801F	1.8 k Ω
56	MF1/4CC2001F	2 k Ω
57	MF1/4CC2201F	2.2 k Ω
58	MF1/4CC2401F	2.4 k Ω
59	MF1/4CC2701F	2.7 k Ω
60	MF1/4CC3001F	3 k Ω
61	MF1/4CC3301F	3.3 k Ω
62	MF1/4CC3601F	3.6 k Ω
63	MF1/4CC3901F	3.9 k Ω
64	MF1/4CC4301F	4.3 k Ω
65	MF1/4CC4701F	4.7 k Ω
66	MF1/4CC5101F	5.1 k Ω
67	MF1/4CC5601F	5.6 k Ω
68	MF1/4CC6201F	6.2 k Ω
69	MF1/4CC6801F	6.8 k Ω
70	MF1/4CC7501F	7.5 k Ω
71	MF1/4CC8201F	8.2 k Ω
72	MF1/4CC9101F	9.1 k Ω
73	MF1/4CC1002F	10 k Ω
74	MF1/4CC1102F	11 k Ω
75	MF1/4CC1202F	12 k Ω
76	MF1/4CC1302F	13 k Ω
77	MF1/4CC1502F	15 k Ω
78	MF1/4CC1602F	16 k Ω
79	MF1/4CC1802F	18 k Ω
80	MF1/4CC2002F	20 k Ω
81	MF1/4CC2202F	22 k Ω
82	MF1/4CC2402F	24 k Ω
83	MF1/4CC2702F	27 k Ω
84	MF1/4CC3002F	30 k Ω
85	MF1/4CC3302F	33 k Ω
86	MF1/4CC3602F	36 k Ω
87	MF1/4CC3902F	39 k Ω
88	MF1/4CC4302F	43 k Ω
89	MF1/4CC4702F	47 k Ω
90	MF1/4CC5102F	51 k Ω
91	MF1/4CC5602F	56 k Ω
92	MF1/4CC6202F	62 k Ω
93	MF1/4CC6802F	68 k Ω
94	MF1/4CC7502F	75 k Ω
95	MF1/4CC8202F	82 k Ω
96	MF1/4CC9102F	91 k Ω
97	MF1/4CC1003F	100 k Ω
98	MF1/4CC1103F	110 k Ω
99	MF1/4CC1203F	120 k Ω
100	MF1/4CC1303F	130 k Ω

No	Manufacturer part number	Resistance
101	MF1/4CC1503F	150 k Ω
102	MF1/4CC1603F	160 k Ω
103	MF1/4CC1803F	180 k Ω
104	MF1/4CC2003F	200 k Ω
105	MF1/4CC2203F	220 k Ω
106	MF1/4CC2403F	240 k Ω
107	MF1/4CC2703F	270 k Ω
108	MF1/4CC3003F	300 k Ω
109	MF1/4CC3303F	330 k Ω
110	MF1/4CC3603F	360 k Ω
111	MF1/4CC3903F	390 k Ω
112	MF1/4CC4303F	430 k Ω
113	MF1/4CC4703F	470 k Ω
114	MF1/4CC5103F	510 k Ω
115	MF1/4CC5603F	560 k Ω
116	MF1/4CC6203F	620 k Ω
117	MF1/4CC6803F	680 k Ω
118	MF1/4CC7503F	750 k Ω
119	MF1/4CC8203F	820 k Ω
120	MF1/4CC9103F	910 k Ω
121	MF1/4CC1004F	1 M Ω

RSKT-MFS1/4
RS_Stock_No:5021232



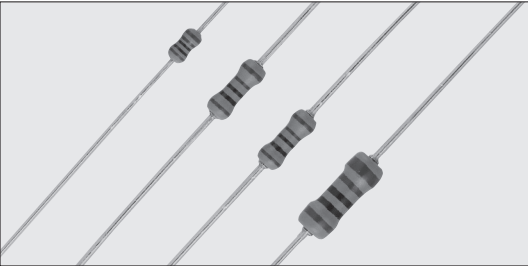
Resistance Range (Ω)	10 Ω to 1M Ω
Dimensions	1.7 Dia. x 3.4 mm
Tolerance	$\pm 1\%$
Power Rating	0.25 W
Temperature Coefficient	± 50 ppm/ $^{\circ}$ C
Number of each resistor	20

No	Manufacturer part number	Resistance
1	MFS1/4CC10R0F	10 Ω
2	MFS1/4CC11R0F	11 Ω
3	MFS1/4CC12R0F	12 Ω
4	MFS1/4CC13R0F	13 Ω
5	MFS1/4CC15R0F	15 Ω
6	MFS1/4CC16R0F	16 Ω
7	MFS1/4CC18R0F	18 Ω
8	MFS1/4CC20R0F	20 Ω
9	MFS1/4CC22R0F	22 Ω
10	MFS1/4CC24R0F	24 Ω
11	MFS1/4CC27R0F	27 Ω
12	MFS1/4CC30R0F	30 Ω
13	MFS1/4CC33R0F	33 Ω
14	MFS1/4CC36R0F	36 Ω
15	MFS1/4CC39R0F	39 Ω
16	MFS1/4CC43R0F	43 Ω
17	MFS1/4CC47R0F	47 Ω
18	MFS1/4CC51R0F	51 Ω
19	MFS1/4CC56R0F	56 Ω
20	MFS1/4CC62R0F	62 Ω
21	MFS1/4CC68R0F	68 Ω
22	MFS1/4CC75R0F	75 Ω
23	MFS1/4CC82R0F	82 Ω
24	MFS1/4CC91R0F	91 Ω
25	MFS1/4CC1000F	100 Ω
26	MFS1/4CC1100F	110 Ω
27	MFS1/4CC1200F	120 Ω
28	MFS1/4CC1300F	130 Ω
29	MFS1/4CC1500F	150 Ω
30	MFS1/4CC1600F	160 Ω
31	MFS1/4CC1800F	180 Ω
32	MFS1/4CC2000F	200 Ω
33	MFS1/4CC2200F	220 Ω
34	MFS1/4CC2400F	240 Ω
35	MFS1/4CC2700F	270 Ω
36	MFS1/4CC3000F	300 Ω
37	MFS1/4CC3300F	330 Ω
38	MFS1/4CC3600F	360 Ω
39	MFS1/4CC3900F	390 Ω
40	MFS1/4CC4300F	430 Ω
41	MFS1/4CC4700F	470 Ω
42	MFS1/4CC5100F	510 Ω
43	MFS1/4CC5600F	560 Ω
44	MFS1/4CC6200F	620 Ω
45	MFS1/4CC6800F	680 Ω
46	MFS1/4CC7500F	750 Ω
47	MFS1/4CC8200F	820 Ω
48	MFS1/4CC9100F	910 Ω
49	MFS1/4CC1001F	1 k Ω
50	MFS1/4CC1101F	1.1 k Ω

No	Manufacturer part number	Resistance
51	MFS1/4CC1201F	1.2 k Ω
52	MFS1/4CC1301F	1.3 k Ω
53	MFS1/4CC1501F	1.5 k Ω
54	MFS1/4CC1601F	1.6 k Ω
55	MFS1/4CC1801F	1.8 k Ω
56	MFS1/4CC2001F	2 k Ω
57	MFS1/4CC2201F	2.2 k Ω
58	MFS1/4CC2401F	2.4 k Ω
59	MFS1/4CC2701F	2.7 k Ω
60	MFS1/4CC3001F	3 k Ω
61	MFS1/4CC3301F	3.3 k Ω
62	MFS1/4CC3601F	3.6 k Ω
63	MFS1/4CC3901F	3.9 k Ω
64	MFS1/4CC4301F	4.3 k Ω
65	MFS1/4CC4701F	4.7 k Ω
66	MFS1/4CC5101F	5.1 k Ω
67	MFS1/4CC5601F	5.6 k Ω
68	MFS1/4CC6201F	6.2 k Ω
69	MFS1/4CC6801F	6.8 k Ω
70	MFS1/4CC7501F	7.5 k Ω
71	MFS1/4CC8201F	8.2 k Ω
72	MFS1/4CC9101F	9.1 k Ω
73	MFS1/4CC1002F	10 k Ω
74	MFS1/4CC1102F	11 k Ω
75	MFS1/4CC1202F	12 k Ω
76	MFS1/4CC1302F	13 k Ω
77	MFS1/4CC1502F	15 k Ω
78	MFS1/4CC1602F	16 k Ω
79	MFS1/4CC1802F	18 k Ω
80	MFS1/4CC2002F	20 k Ω
81	MFS1/4CC2202F	22 k Ω
82	MFS1/4CC2402F	24 k Ω
83	MFS1/4CC2702F	27 k Ω
84	MFS1/4CC3002F	30 k Ω
85	MFS1/4CC3302F	33 k Ω
86	MFS1/4CC3602F	36 k Ω
87	MFS1/4CC3902F	39 k Ω
88	MFS1/4CC4302F	43 k Ω
89	MFS1/4CC4702F	47 k Ω
90	MFS1/4CC5102F	51 k Ω
91	MFS1/4CC5602F	56 k Ω
92	MFS1/4CC6202F	62 k Ω
93	MFS1/4CC6802F	68 k Ω
94	MFS1/4CC7502F	75 k Ω
95	MFS1/4CC8202F	82 k Ω
96	MFS1/4CC9102F	91 k Ω
97	MFS1/4CC1003F	100 k Ω
98	MFS1/4CC1103F	110 k Ω
99	MFS1/4CC1203F	120 k Ω
100	MFS1/4CC1303F	130 k Ω

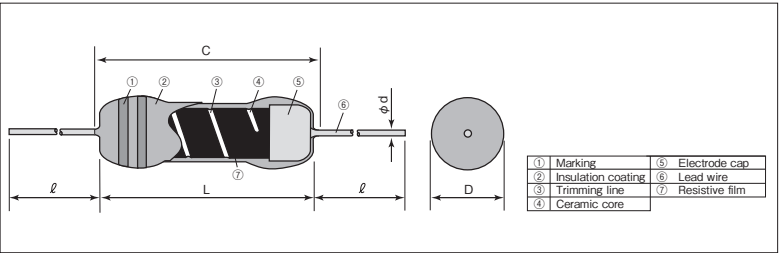
No	Manufacturer part number	Resistance
101	MFS1/4CC1503F	150 k Ω
102	MFS1/4CC1603F	160 k Ω
103	MFS1/4CC1803F	180 k Ω
104	MFS1/4CC2003F	200 k Ω
105	MFS1/4CC2203F	220 k Ω
106	MFS1/4CC2403F	240 k Ω
107	MFS1/4CC2703F	270 k Ω
108	MFS1/4CC3003F	300 k Ω
109	MFS1/4CC3303F	330 k Ω
110	MFS1/4CC3603F	360 k Ω
111	MFS1/4CC3903F	390 k Ω
112	MFS1/4CC4303F	430 k Ω
113	MFS1/4CC4703F	470 k Ω
114	MFS1/4CC5103F	510 k Ω
115	MFS1/4CC5603F	560 k Ω
116	MFS1/4CC6203F	620 k Ω
117	MFS1/4CC6803F	680 k Ω
118	MFS1/4CC7503F	750 k Ω
119	MFS1/4CC8203F	820 k Ω
120	MFS1/4CC9103F	910 k Ω
121	MFS1/4CC1004F	1 M Ω

MF Coat-Insulated Fixed Metal Film Resistors



Coating color : Light gray
Marking : Color code

Construction



Features

- High precision and low T.C.R. metal film resistors.
- Automatic insertion is applicable.
- Various formings are available.
- Excellent stability for a long time.
- Products meet EU-RoHS requirements.

Reference Standards

IEC 60115-1
JIS C 5201-1
EIAJ RC-2137

Dimensions

Type	Dimensions (mm)					Weight (g) (1000pcs)
	L	C Max.	D	d (Nominal)	ℓ ±3 ^{※1}	
MFS1/4	3.2±0.2	3.4	1.7 ^{+0.2} _{-0.1}	0.45	28	120
MF1/4	6.3±0.5	7.1	2.3±0.3	0.6		215
MFS1/2						215
MF1/2						9.0±1.0

※1 Lead length changes depending on taping and forming type.

Type Designation

Example

MF	1/4	D	C	T52	A	1002	F
Product Code	Power Rating	T.C.R. ($\times 10^{-6}/K$)	Terminal Surface Material	Taping & Forming	Packaging	Nominal Resistance	Resistance Tolerance
	S1/4: 0.25W 1/4: 0.25W S1/2: 0.5W 1/2: 0.5W	C: ± 50 D: ± 100 L: ± 200	C: SnCu	See table below	A: AMMO R: REEL Nil: BOX	D, F: 4 digits G: 3 digits	D: $\pm 0.5\%$ F: $\pm 1\%$ G: $\pm 2\%$

Contact us when you have control request for environmental hazardous material other than the substance specified by EU-RoHS.
For further information on taping and forming, please refer to APPENDIX C on the back pages.

Taping & Forming Matrix

Type	Axial Taping		Radial Taping				U Forming	M Forming				
	T26	T52	VT	VTP	VTE	MT	U	M5		M10	M12.5	M15
MFS1/4□C	○	○	○	—	—	○	○	M5F	M5R	—	—	—
MF1/4□C	○	○	○	○	○	—	○	—	—	M10F	M12.5R	—
MFS1/2□C	○	○	○	○	○	—	—	—	—	M10R	—	—
MF1/2□C	—	○	—	—	—	—	—	—	—	—	M12.5R	M15R

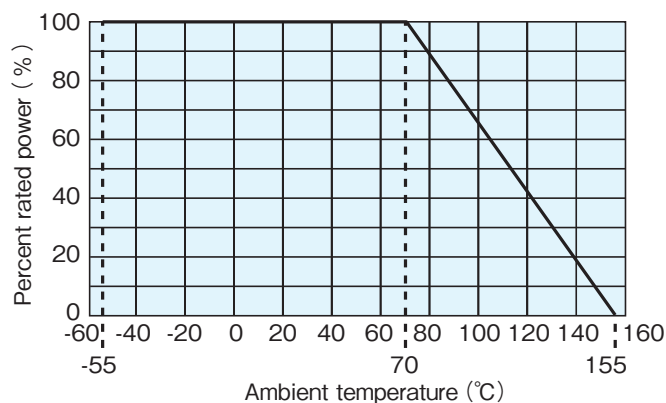
□ : T.C.R.

Ratings

Type	Power Rating	T.C.R. (×10 ⁻⁶ /K)	Resistance Range (Ω)			Max. Working Voltage	Max. Overload Voltage	Dielectri Withstanding Voltage	Taping & Q'ty/AMMO (pcs)	
			D : ±0.5% E24 · E192	F : ±1% E24 · E96	G : ±2% E24				T26A	T52A
MFS1/4CC	0.25W	C : ±50	49.9~562k	10~1M	—	250V	500V	300V	3,000	3,000
MFS1/4DC		D : ±100							3,000	3,000
MF1/4CC	0.25W	C : ±50	10~2.21M	10~2.21M	—			500V	2,000	2,000
MF1/4DC		D : ±100							2,000	2,000
MF1/4LC	L : ±200	—	1.0~10	0.51~10	2,000				2,000	
MFS1/2CC	0.5W	C : ±50	10~1M	10~2.2M	10~2.2M				2,000	2,000
MFS1/2DC		D : ±100							2,000	2,000
MF1/2CC	0.5W	C : ±50	10~5.05M	10~4.99M	—	350V	700V	700V	—	2,000
MF1/2DC		D : ±100							10~5.11M	2,000
MF1/2LC		L : ±200							—	1.0~10

Rated Ambient Temperature : +70℃
Operating Temperature Range : -55℃ ~ +155℃
Rated voltage = √(Power Rating × Resistance value) or Max. working voltage, whichever is lower.

Derating Curve



For resistors operated at an ambient temperature of 70°C or higher, the power shall be derated in accordance with the above derating curve.

Performance

Test Items	Performance Requirements $\Delta R \pm (\% + 0.05\Omega)$		Test Methods
	Limit	Typical	
Resistance	Within specified tolerance	—	25°C
T.C.R.	Within specified T.C.R.	—	+25°C / +125°C
Overload (Short time)	0.5	0.3	Rated voltage×2.5 or Max. overload vol., whichever is lower, for 5s : MFS1/4, MF1/4, MF1/2 Rated voltage×2 or Max. overload vol., whichever is lower, for 5s : MFS1/2
Resistance to soldering heat	0.75 : MFS1/4 0.5 : MF1/4, MFS1/2, MF1/2	0.4 : MFS1/4 0.25 : MF1/4, MFS1/2, MF1/2	260°C±5°C, 10s±1s
Rapid change of temperature	1.0	0.3	−55°C (30min.) / +155°C (30min.) 5 cycles
Moisture resistance	1.5 : MFS1/4 1 : MF1/4, MFS1/2, MF1/2	1 : MFS1/4 0.75 : MF1/4, MFS1/2, MF1/2	40°C±2°C, 90%~95%RH, 1000h 1.5h ON/0.5h OFF cycle
Endurance at 70°C	1.5 : MFS1/4 1 : MF1/4, MFS1/2, MF1/2	1 : MFS1/4 0.75 : MF1/4, MFS1/2, MF1/2	70°C±2°C, 1000h 1.5h ON/0.5h OFF cycle

Precautions for Use

- Ionic impurities such as flux etc. that are attached to these products or those mounted onto a PCB, negatively affect their moisture resistance, corrosion resistance, etc. The flux may contain ionic substances like chlorine, acid, etc. Please wash them to get rid of these ionic substances especially when using lead-free solder that may contain much of the said substances for improving a wetting characteristic. Using RMA solder or RMA flux, or well-washing is needed. Also, attaching ionic substances such as perspiration, salt etc. by storage environments or mounting conditions/environments negatively affects their moisture resistance, corrosion resistance etc. Please wash them to remove the ionic substances when they are polluted.