Automotive and Anti-Sulfuration Chip Resistor 0805

RoHS Compliant

Description

The resistors are constructed in a high grade ceramic body (aluminium oxide). Internal metal electrodes are added at each end and connected by a resistive paste that is applied to the top surface of the substrate. The composition of the paste is adjusted to give the approximate resistance required and the value is trimmed to within tolerance by laser cutting of this resistive layer

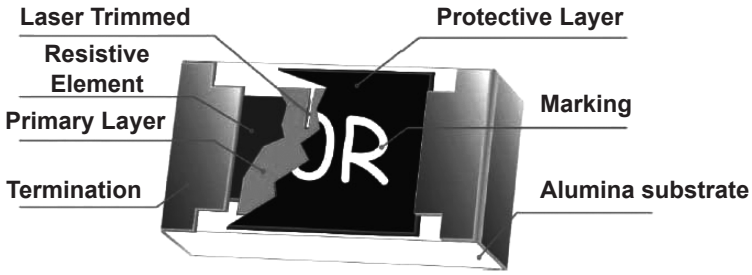
Features:

- High reliability and stability ±1%
- Sulfuration resistant 1,000ppm
- Automotive grade AEC Q-200 compliant
- 100% CCD inspection
- Lead-free

Applications:

Automotive application
Consumer electrical equipment
EDP, computer application
Telecom application

The resistive layer is covered with a protective coat. Finally, the two external end terminations are added. For ease of soldering the outer layer of these end terminations is a Tin (lead free) alloy



Construction of a Chip-R

Quick Reference Data

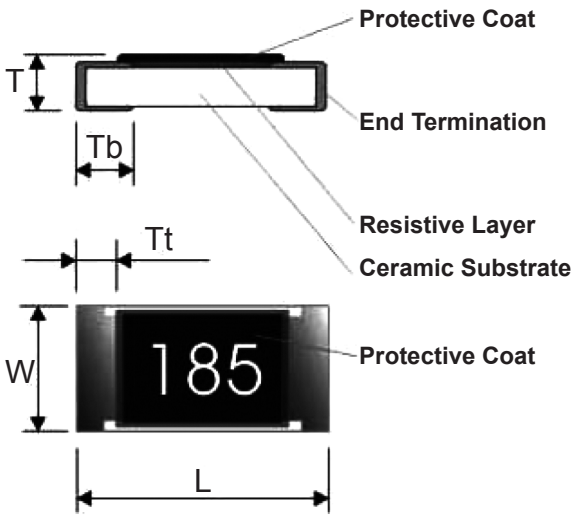
Item	General Specification	
Series no.	MCSR08	
Size code	0805	
Resistance range	1Ω to 10MΩ (±5% tolerance), Jumper 1Ω to 10MΩ (±1% tolerance)	
Resistance tolerance	±1% E96 / E24	±5% E24
TCR (ppm/°C) R > 1MΩ 10Ω < R ≤ 1MΩ R ≤ 10Ω	 ≤ +200 ≤ +100 -200 to +400	
Maximum dissipation at T_{amb} = 70°C	1/8W	
Maximum operation voltage (DC or RMS)	150V	
Maximum overload voltage (DC or RMS)	300V	
Climatic category (IEC 60068)	55/155/56	

Note:

1. This is the maximum voltage that may be continuously supplied to the resistor element, see “IEC publication 60115-8”
2. Maximum operation voltage : So called RCWV (rated continuous working voltage) is determined by

$$RCWV = \sqrt{\text{Rated Power} \times \text{Resistance Value}} \text{ or maximum RCWV listed above, whichever is lower}$$

3. The resistance of jumper is defined < 0.05Ω



Dimensions (mm)

MCSR08 (0805)	L	W	T	Tb	Tt
	2 ±0.1	1.25 ±0.1	0.5 ±0.15	0.4 ±0.2	0.4 ±0.2

Marking

Size \ No. of Digit of Code \ Tolerance	±5%	±1%
MCSR08 (0805)	3-digits marking	4-digits marking

3-digits marking (±5% : 0805)

Each resistor is marked with a three digits code on the protective coating to designate the nominal resistance value

4-digits marking (±1% : 0805)

Each resistor is marked with a three digits code on the protective coating to designate the nominal resistance value

Example

Resistance	10Ω	12Ω	100Ω	6,800Ω	47,000Ω
3-digits marking (0805 ±5%)	100	120	101	682	473
4-digits marking	10R0	12R0	1,000	6,801	4,702

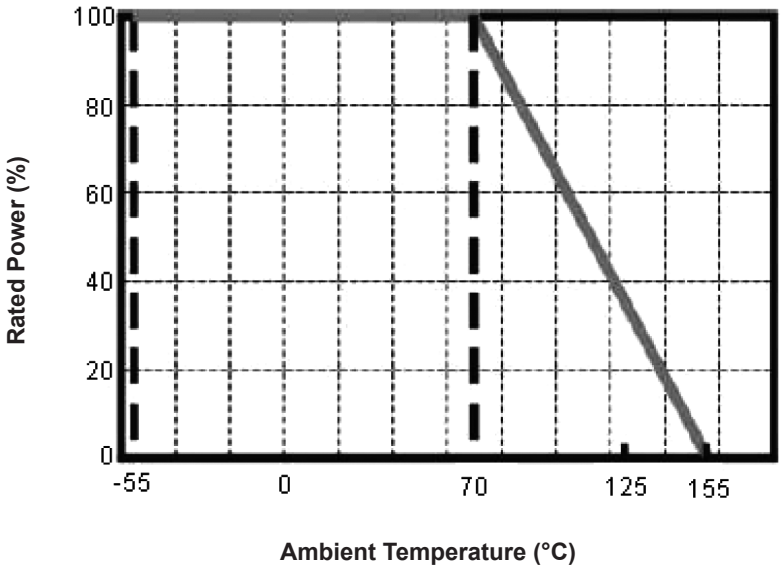
Functional Description

Product characterization

Standard values of nominal resistance are taken from the E24 series for resistors with a tolerance of ±5%, and E24+E96 series for resistors with a tolerance of ±1%. The values of the E24 / E96 series are in accordance with “IEC publication 60063”

Derating

The power that the resistor can dissipate depends on the operating temperature



Max. dissipation in percentage of rated power as a function of the ambient temperature

Mounting:

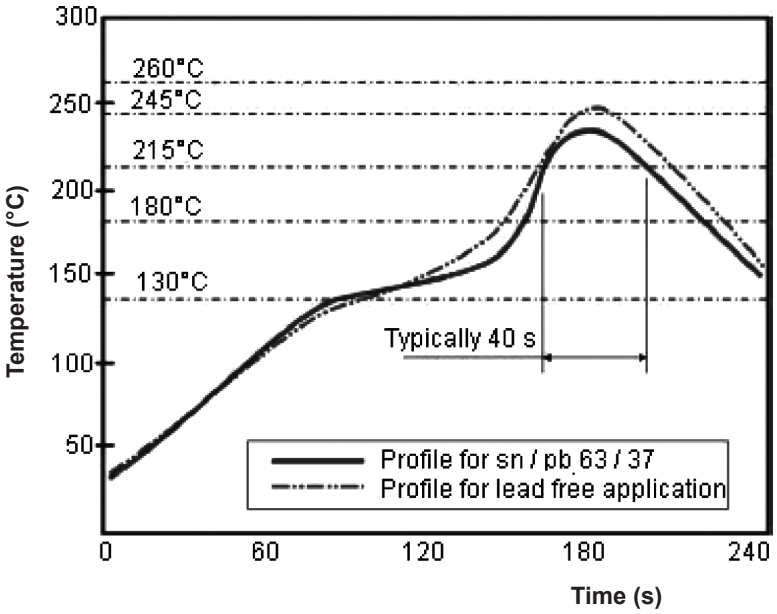
Due to their rectangular shapes and small tolerances, surface mountable resistors are suitable for handling by automatic placement systems

Chip placement can be on ceramic substrates and printed-circuit boards (PCBs)
Electrical connection to the circuit is by individual soldering condition
The end terminations guarantee a reliable contact

Soldering Condition

The robust construction of chip resistors allows them to be completely immersed in a solder bath of 260°C for 10 seconds. Therefore, it is possible to mount surface mount resistors on one side of a PCB and other discrete components on the reverse (mixed PCBs)

Surface mount resistors are tested for solderability at 235°C during 2 seconds. The test condition for no leaching is 260°C for 30 seconds. Typical examples of soldering processes that provide reliable joints without any damage are given in below.



Infrared soldering profile for Chip Resistors

Test and Requirements

Essentially all tests are carried out according to the schedule of IEC publication 115-8, category LCT/UCT/56 (rated temperature range : Lower Category Temperature, Upper Category Temperature; damp heat, long term, 56 days). The testing also meets the requirements specified by EIA, EIAJ and JIS

The tests are carried out in accordance with IEC publication 68, “Recommended basic climatic and mechanical robustness testing procedure for electronic components” and under standard atmospheric conditions according to IEC 60068-1, sub-clause 5.3. Unless otherwise specified, the following value supplied :

Temperature : 15°C to 35°C

Relative humidity : 45% to 75%

Air pressure : 86kPa to 106kPa (860 mbar to 1,060 mbar)

All soldering tests are performed with midly activated flux

Test and Requirements

Test	Procedure / Test Method	Requirement	
		Resistance ±5%, ±1%	0Ω
Electrical Characteristics JISC5201-1: 1998 Clause 4.8	- DC resistance values measurement - Temperature Coefficient of Resistance (T.C.R) Natural resistance change per change in degree centigrade $\frac{R2 - R1}{R1 (t2 - t1)} \times 10^6$ (ppm/°C) t_1 : 20°C +5°C -1°C R1 : Resistance at reference temperature R2 : Resistance at test temperature	Within the specified tolerance Refer to “Quick Reference Data”	
Resistance to soldering heat (R.S.H) MIL-STD-202 method 210	Un-mounted chips completely immersed for 10 ±1 second in a SAC solder bath at 270°C ±5°C	ΔR/R Max. ± (0.5%+0.05Ω) No visible damage	< 50mΩ
Solderability J-STD-002	a) Bake the sample for 155°C dwell time 4 hours / solder dipping 235°C / 5 s b) Steam the sample dwell time 1 hour/ solder dipping 215°C/ 5 s c) Steam the sample dwell time 1 hour/ solder dipping 260°C / 7 s	95% coverage minimum, good tinning No visible damage	
Temperature cycling JESD22 method JA-104	1,000 cycles, -55°C to +155°C, dwell time 5 to 10mins	ΔR/R Max. ± (0.5%+0.05Ω) No visible damage	< 50mΩ
Moisture Resistance MIL-STD-202 method 106	65 ±2°C, 80 to 100% RH, 10 cycles, 24 hours / cycle	ΔR/R Max. ± (0.5%+0.05Ω) No visible damage	< 50mΩ
Bias Humidity MIL-STD-202 method 103	1,000 +48/-0 hours; 85°C, 85% RH, 10% of operation Power	ΔR/R Max. ± (1%+0.05Ω) No visible damage	< 50mΩ
Operational Life MIL-STD-202 method 108	1,000 +48/-0 hours; 35% of operation power, 125 ±2°C	ΔR/R Max. ± (1%+0.05 Ω) No visible damage	< 50mΩ
High Temperature Exposure MIL-STD-202 method 108	1,000+48/-0 hours; without load in a temperature chamber controlled 155±3°C	ΔR/R Max. ± (1%+0.05 Ω) No visible damage	< 50mΩ
Mechanical Shock MIL-STD-202 method 213	1/2 sine pulse / 1,500 g peak / Velocity 15.4 ft/s	Within the specified tolerance No visible damage	< 50mΩ
Board Flex AEC-Q200-005	Resistors mounted on a 90 mm glass epoxy resin PCB(FR4), bending once 2 mm for 10 s	ΔR/R Max. ± (1%+0.05 Ω) No visible damage	< 50mΩ
Terminal strength AEC-Q200-006	Pressurizing force: 1 Kg, Test time: 60±1 s	No remarkable damage or removal of the terminations	
Vibration MIL-STD-202 method 204	Test 5 g’s for 20 minimum, 12 cycles each of 3 orientations	ΔR/R Max. ± (1%+0.05 Ω) No visible damage	< 50mΩ
Thermal shock MIL-STD-202 method 107	Test –55 to 155 / dwell time 15 minimum / maximum transfer time 20 seconds 300 cycles	ΔR/R Max. ± (0.5%+0.05 Ω) No visible damage	< 50mΩ
ESD AEC-Q200-002	Test contact 1 KV (0.5 KV for 0402 only)	ΔR/R Max. ± (1%+0.05 Ω) No visible damage	< 50mΩ

Test Condition for Jumper (0Ω)

Item	MCSR08 (0805)
Power rating at +70°C	1/8 W
Resistance	Max. 50mΩ
Rated current	1.5A
Peak current	3.5A
Operating temperature	-55°C to +155°C

MCSR08 (0805):

1. Reeled tape packaging : 8 mm width paper taping 5,000 pieces per 7” reel, 10 k pieces per 10” reel, 20 k pieces per 13” reel
2. Bulk packaging : 5,000 pieces per poly-bag

Part Number Table

Description	Part Number
Resistor, 0805, 10M, 1%, Anti Sulfur	MCSR08W1005FTL
Resistor, 0805, 1R, 1%, Anti Sulfur	MCSR08W1R00FTL
Resistor, 0805, 1R5, 1%, Anti Sulfur	MCSR08W1R50FTL
Resistor, 0805, 2M, 1%, Anti Sulfur	MCSR08W2004FTL
Resistor, 0805, 2R, 1%, Anti Sulfur	MCSR08W2R00FTL
Resistor, 0805, 2R2, 1%, Anti Sulfur	MCSR08W2R20FTL
Resistor, 0805, 3R3, 1%, Anti Sulfur	MCSR08W3R30FTL
Resistor, 0805, 4R7, 1%, Anti Sulfur	MCSR08W4R70FTL
Resistor, 0R, 125mW, 0.05R, Anti Sulphur	MCSR08X000 PTL
Resistor, 10R, 0805, 5%, Anti Sulfur	MCSR08X100 JTL
Resistor, 0805, 100R, 1%, Anti Sulfur	MCSR08X1000FTL
Resistor, 1K, 125mW, 1%, Anti Sulphur	MCSR08X1001FTL
Resistor, 10K, 125mW, 1%, Anti Sulphur	MCSR08X1002FTL
Resistor, 100K, 125mW, 1%, Anti Sulphur	MCSR08X1003FTL
Resistor, 0805, 1M, 1%, Anti Sulfur	MCSR08X1004FTL
Resistor, 100R, 0805, 5%, Anti Sulfur	MCSR08X101 JTL
Resistor, 1K, 0805, 5%, Anti Sulfur	MCSR08X102 JTL
Resistor, 0805, 102R, 1%, Anti Sulfur	MCSR08X1020FTL
Resistor, 10K, 0805, 5%, Anti Sulfur	MCSR08X103 JTL
Resistor, 100K, 125mW, 5%, Anti Sulphur	MCSR08X104 JTL
Resistor, 1M, 0805, 5%, Anti Sulfur	MCSR08X105 JTL
Resistor, 0805, 1M07, 1%, Anti Sulfur	MCSR08X1074FTL

Description	Part Number
Resistor, 0805, 10R, 1%, Anti Sulfur	MCSR08X10R0FTL
Resistor, 0805, 110R, 1%, Anti Sulfur	MCSR08X1100FTL
Resistor, 0805, 1K1, 1%, Anti Sulfur	MCSR08X1101FTL
Resistor, 0805, 11K, 1%, Anti Sulfur	MCSR08X1102FTL
Resistor, 0805, 110K, 1%, Anti Sulfur	MCSR08X1103FTL
Resistor, 0805, 11K3, 1%, Anti Sulfur	MCSR08X1132FTL
Resistor, 0805, 11K5, 1%, Anti Sulfur	MCSR08X1152FTL
Resistor, 0805, 11R, 1%, Anti Sulfur	MCSR08X11R0FTL
Resistor, 0805, 11R8, 1%, Anti Sulfur	MCSR08X11R8FTL
Resistor, 0805, 120R, 1%, Anti Sulfur	MCSR08X1200FTL
Resistor, 0805, 1K2, 1%, Anti Sulfur	MCSR08X1201FTL
Resistor, 0805, 12K, 1%, Anti Sulfur	MCSR08X1202FTL
Resistor, 0805, 120K, 1%, Anti Sulfur	MCSR08X1203FTL
Resistor, 120R, 0805, 5%, Anti Sulfur	MCSR08X121 JTL
Resistor, 0805, 12K1, 1%, Anti Sulfur	MCSR08X1212FTL
Resistor, 1K2, 0805, 5%, Anti Sulfur	MCSR08X122 JTL
Resistor, 12K, 0805, 5%, Anti Sulfur	MCSR08X123 JTL
Resistor, 0805, 12R, 1%, Anti Sulfur	MCSR08X12R0FTL
Resistor, 0805, 130R, 1%, Anti Sulfur	MCSR08X1300FTL
Resistor, 0805, 1K3, 1%, Anti Sulfur	MCSR08X1301FTL
Resistor, 0805, 13K, 1%, Anti Sulfur	MCSR08X1302FTL
Resistor, 0805, 130K, 1%, Anti Sulfur	MCSR08X1303FTL
Resistor, 0805, 13R, 1%, Anti Sulfur	MCSR08X13R0FTL
Resistor, 15R, 0805, 5%, Anti Sulfur	MCSR08X150 JTL
Resistor, 0805, 150R, 1%, Anti Sulfur	MCSR08X1500FTL
Resistor, 0805, 1K5, 1%, Anti Sulfur	MCSR08X1501FTL
Resistor, 0805, 15K, 1%, Anti Sulfur	MCSR08X1502FTL
Resistor, 0805, 150K, 1%, Anti Sulfur	MCSR08X1503FTL
Resistor, 150R, 0805, 5%, Anti Sulfur	MCSR08X151 JTL
Resistor, 1K5, 0805, 5%, Anti Sulfur	MCSR08X152 JTL
Resistor, 0805, 15R, 1%, Anti Sulfur	MCSR08X15R0FTL
Resistor, 0805, 160R, 1%, Anti Sulfur	MCSR08X1600FTL
Resistor, 0805, 1K6, 1%, Anti Sulfur	MCSR08X1601FTL
Resistor, 0805, 16K, 1%, Anti Sulfur	MCSR08X1602FTL
Resistor, 0805, 160K, 1%, Anti Sulfur	MCSR08X1603FTL
Resistor, 0805, 16R, 1%, Anti Sulfur	MCSR08X16R0FTL
Resistor, 0805, 180R, 1%, Anti Sulfur	MCSR08X1800FTL

Description	Part Number
Resistor, 0805, 1K8, 1%, Anti Sulfur	MCSR08X1801FTL
Resistor, 0805, 18K, 1%, Anti Sulfur	MCSR08X1802FTL
Resistor, 0805, 180K, 1%, Anti Sulfur	MCSR08X1803FTL
Resistor, 180R, 0805, 5%, Anti Sulfur	MCSR08X181 JTL
Resistor, 1K8, 0805, 5%, Anti Sulfur	MCSR08X182 JTL
Resistor, 0805, 18R, 1%, Anti Sulfur	MCSR08X18R0FTL
Resistor, 0805, 200R, 1%, Anti Sulfur	MCSR08X2000FTL
Resistor, 0805, 2K, 1%, Anti Sulfur	MCSR08X2001FTL
Resistor, 0805, 20K, 1%, Anti Sulfur	MCSR08X2002FTL
Resistor, 0805, 200K, 1%, Anti Sulfur	MCSR08X2003FTL
Resistor, 0805, 205R, 1%, Anti Sulfur	MCSR08X2050FTL
Resistor, 0805, 2K05, 1%, Anti Sulfur	MCSR08X2051FTL
Resistor, 0805, 205K, 1%, Anti Sulfur	MCSR08X2053FTL
Resistor, 0805, 20R, 1%, Anti Sulfur	MCSR08X20R0FTL
Resistor, 0805, 21K5, 1%, Anti Sulfur	MCSR08X2152FTL
Resistor, 22R, 0805, 5%, Anti Sulfur	MCSR08X220 JTL
Resistor, 0805, 220R, 1%, Anti Sulfur	MCSR08X2200FTL
Resistor, 0805, 2K2, 1%, Anti Sulfur	MCSR08X2201FTL
Resistor, 0805, 22K, 1%, Anti Sulfur	MCSR08X2202FTL
Resistor, 0805, 220K, 1%, Anti Sulfur	MCSR08X2203FTL
Resistor, 220R, 0805, 5%, Anti Sulfur	MCSR08X221 JTL
Resistor, 0805, 2K21, 1%, Anti Sulfur	MCSR08X2211FTL
Resistor, 2K2, 0805, 5%, Anti Sulfur	MCSR08X222 JTL
Resistor, 22K, 0805, 5%, Anti Sulfur	MCSR08X223 JTL
Resistor, 0805, 22R, 1%, Anti Sulfur	MCSR08X22R0FTL
Resistor, 0805, 240R, 1%, Anti Sulfur	MCSR08X2400FTL
Resistor, 0805, 2K4, 1%, Anti Sulfur	MCSR08X2401FTL
Resistor, 0805, 24K, 1%, Anti Sulfur	MCSR08X2402FTL
Resistor, 0805, 240K, 1%, Anti Sulfur	MCSR08X2403FTL
Resistor, 0805, 243R, 1%, Anti Sulfur	MCSR08X2430FTL
Resistor, 0805, 2K43, 1%, Anti Sulfur	MCSR08X2431FTL
Resistor, 0805, 24R, 1%, Anti Sulfur	MCSR08X24R0FTL
Resistor, 0805, 25R5, 1%, Anti Sulfur	MCSR08X25R5FTL
Resistor, 0805, 270R, 1%, Anti Sulfur	MCSR08X2700FTL
Resistor, 0805, 2K7, 1%, Anti Sulfur	MCSR08X2701FTL
Resistor, 0805, 27K, 1%, Anti Sulfur	MCSR08X2702FTL
Resistor, 0805, 270K, 1%, Anti Sulfur	MCSR08X2703FTL

Description	Part Number
Resistor, 27K, 0805, 5%, Anti Sulfur	MCSR08X273 JTL
Resistor, 0805, 27R, 1%, Anti Sulfur	MCSR08X27R0FTL
Resistor, 0805, 287R, 1%, Anti Sulfur	MCSR08X2870FTL
Resistor, 0805, 300R, 1%, Anti Sulfur	MCSR08X3000FTL
Resistor, 0805, 3K, 1%, Anti Sulfur	MCSR08X3001FTL
Resistor, 0805, 30K, 1%, Anti Sulfur	MCSR08X3002FTL
Resistor, 0805, 300K, 1%, Anti Sulfur	MCSR08X3003FTL
Resistor, 0805, 301K, 1%, Anti Sulfur	MCSR08X3013FTL
Resistor, 0805, 30R, 1%, Anti Sulfur	MCSR08X30R0FTL
Resistor, 0805, 330R, 1%, Anti Sulfur	MCSR08X3300FTL
Resistor, 0805, 3K3, 1%, Anti Sulfur	MCSR08X3301FTL
Resistor, 0805, 33K, 1%, Anti Sulfur	MCSR08X3302FTL
Resistor, 0805, 330K, 1%, Anti Sulfur	MCSR08X3303FTL
Resistor, 330R, 0805, 5%, Anti Sulfur	MCSR08X331 JTL
Resistor, 3K3, 0805, 5%, Anti Sulfur	MCSR08X332 JTL
Resistor, 33K, 0805, 5%, Anti Sulfur	MCSR08X333 JTL
Resistor, 330K, 0805, 5%, Anti Sulfur	MCSR08X334 JTL
Resistor, 0805, 33R, 1%, Anti Sulfur	MCSR08X33R0FTL
Resistor, 0805, 360R, 1%, Anti Sulfur	MCSR08X3600FTL
Resistor, 0805, 3K6, 1%, Anti Sulfur	MCSR08X3601FTL
Resistor, 0805, 36K, 1%, Anti Sulfur	MCSR08X3602FTL
Resistor, 0805, 360K, 1%, Anti Sulfur	MCSR08X3603FTL
Resistor, 0805, 36R, 1%, Anti Sulfur	MCSR08X36R0FTL
Resistor, Anti Sulfur, 39R, 0805, 5%	MCSR08X390 JTL
Resistor, 0805, 390R, 1%, Anti Sulfur	MCSR08X3900FTL
Resistor, 0805, 3K9, 1%, Anti Sulfur	MCSR08X3901FTL
Resistor, 0805, 39K, 1%, Anti Sulfur	MCSR08X3902FTL
Resistor, 0805, 390K, 1%, Anti Sulfur	MCSR08X3903FTL
Resistor, 3K9, 0805, 5%, Anti Sulfur	MCSR08X392 JTL
Resistor, 0805, 39R, 1%, Anti Sulfur	MCSR08X39R0FTL
Resistor, 0805, 412R, 1%, Anti Sulfur	MCSR08X4120FTL
Resistor, 0805, 430R, 1%, Anti Sulfur	MCSR08X4300FTL
Resistor, 0805, 4K3, 1%, Anti Sulfur	MCSR08X4301FTL
Resistor, 0805, 43K, 1%, Anti Sulfur	MCSR08X4302FTL
Resistor, 0805, 430K, 1%, Anti Sulfur	MCSR08X4303FTL
Resistor, 0805, 43R, 1%, Anti Sulfur	MCSR08X43R0FTL
Resistor, 47R, 0805, 5%, Anti Sulfur	MCSR08X470 JTL

Description	Part Number
Resistor, 0805, 470R, 1%, Anti Sulfur	MCSR08X4700FTL
Resistor, 4.7K, 125mW, 1%, Anti Sulphur	MCSR08X4701FTL
Resistor, 47K, 125mW, 1%, Anti Sulphur	MCSR08X4702FTL
Resistor, 0805, 470K, 1%, Anti Sulfur	MCSR08X4703FTL
Resistor, 470R, 0805, 5%, Anti Sulfur	MCSR08X471 JTL
Resistor, 4K7, 0805, 5%, Anti Sulfur	MCSR08X472 JTL
Resistor, 47K, 0805, 5%, Anti Sulfur	MCSR08X473 JTL
Resistor, 0805, 47R, 1%, Anti Sulfur	MCSR08X47R0FTL
Resistor, 0805, 499R, 1%, Anti Sulfur	MCSR08X4990FTL
Resistor, 0805, 510R, 1%, Anti Sulfur	MCSR08X5100FTL
Resistor, 0805, 5K1, 1%, Anti Sulfur	MCSR08X5101FTL
Resistor, 0805, 51K, 1%, Anti Sulfur	MCSR08X5102FTL
Resistor, 0805, 510K, 1%, Anti Sulfur	MCSR08X5103FTL
Resistor, 0805, 51R, 1%, Anti Sulfur	MCSR08X51R0FTL
Resistor, 0805, 560R, 1%, Anti Sulfur	MCSR08X5600FTL
Resistor, 0805, 5K6, 1%, Anti Sulfur	MCSR08X5601FTL
Resistor, 0805, 56K, 1%, Anti Sulfur	MCSR08X5602FTL
Resistor, 0805, 560K, 1%, Anti Sulfur	MCSR08X5603FTL
Resistor, 560R, 0805, 5%, Anti Sulfur	MCSR08X561 JTL
Resistor, 5K6, 0805, 5%, Anti Sulfur	MCSR08X562 JTL
Resistor, 56K, 0805, 5%, Anti Sulfur	MCSR08X563 JTL
Resistor, 560K, 0805, 5%, Anti Sulfur	MCSR08X564 JTL
Resistor, 0805, 56R, 1%, Anti Sulfur	MCSR08X56R0FTL
Resistor, 5R6, 0805, 5%, Anti Sulfur	MCSR08X5R6 JTL
Resistor, 0805, 620R, 1%, Anti Sulfur	MCSR08X6200FTL
Resistor, 0805, 6K2, 1%, Anti Sulfur	MCSR08X6201FTL
Resistor, 0805, 62K, 1%, Anti Sulfur	MCSR08X6202FTL
Resistor, 0805, 620K, 1%, Anti Sulfur	MCSR08X6203FTL
Resistor, 0805, 62R, 1%, Anti Sulfur	MCSR08X62R0FTL
Resistor, 0805, 63K4, 1%, Anti Sulfur	MCSR08X6342FTL
Resistor, 68R, 0805, 5%, Anti Sulfur	MCSR08X680 JTL
Resistor, 0805, 680R, 1%, Anti Sulfur	MCSR08X6800FTL
Resistor, 0805, 6K8, 1%, Anti Sulfur	MCSR08X6801FTL
Resistor, 0805, 68K, 1%, Anti Sulfur	MCSR08X6802FTL
Resistor, 0805, 680K, 1%, Anti Sulfur	MCSR08X6803FTL
Resistor, 680R, 0805, 5%, Anti Sulfur	MCSR08X681 JTL
Resistor, 6K8, 0805, 5%, Anti Sulfur	MCSR08X682 JTL

Description	Part Number
Resistor, 0805, 68R, 1%, Anti Sulfur	MCSR08X68R0FTL
Resistor, 0805, 71K5, 1%, Anti Sulfur	MCSR08X7152FTL
Resistor, 0805, 750R, 1%, Anti Sulfur	MCSR08X7500FTL
Resistor, 0805, 7K5, 1%, Anti Sulfur	MCSR08X7501FTL
Resistor, 0805, 75K, 1%, Anti Sulfur	MCSR08X7502FTL
Resistor, 0805, 750K, 1%, Anti Sulfur	MCSR08X7503FTL
Resistor, 0805, 75R, 1%, Anti Sulfur	MCSR08X75R0FTL
Resistor, 0805, 820R, 1%, Anti Sulfur	MCSR08X8200FTL
Resistor, 0805, 8K2, 1%, Anti Sulfur	MCSR08X8201FTL
Resistor, 0805, 82K, 1%, Anti Sulfur	MCSR08X8202FTL
Resistor, 0805, 820K, 1%, Anti Sulfur	MCSR08X8203FTL
Resistor, 820R, 0805, 5%, Anti Sulfur	MCSR08X821 JTL
Resistor, 8K2, 0805, 5%, Anti Sulfur	MCSR08X822 JTL
Resistor, 0805, 8K25, 1%, Anti Sulfur	MCSR08X8251FTL
Resistor, 0805, 82R, 1%, Anti Sulfur	MCSR08X82R0FTL
Resistor, 0805, 9K09, 1%, Anti Sulfur	MCSR08X9091FTL
Resistor, 0805, 910R, 1%, Anti Sulfur	MCSR08X9100FTL
Resistor, 0805, 9K1, 1%, Anti Sulfur	MCSR08X9101FTL
Resistor, 0805, 91K, 1%, Anti Sulfur	MCSR08X9102FTL
Resistor, 0805, 910K, 1%, Anti Sulfur	MCSR08X9103FTL
Resistor, 0805, 91R, 1%, Anti Sulfur	MCSR08X91R0FTL