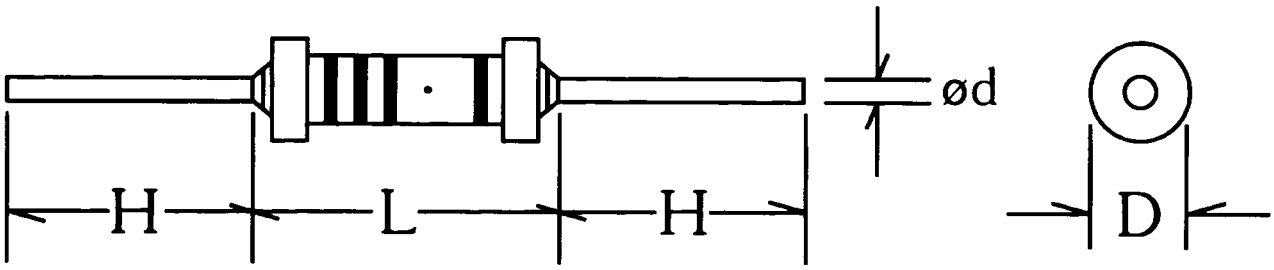
Metal Oxide Film Fixed Resistors

Features

- Excellent flame retardant coating
- Stable performance in diverse environments
- High purity ceramic core
- Meet EIAJ-RC2655A requirements
- High safety standard
- Too low or too high ohmic value can be supplied on a case to case basis

General Specification & Dimensions



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Performance Specifications

Characteristics	Limits	Test Methods
Temperature coefficient JIS-C-5202 5.2	±350PPM/°C	Natural resistance change per temp. degree centigrade. $\frac{R_2-R_1}{R_1(t_2-t_1)} \times 10^6$ (ppm/°C) R_1: Resistance value at room temperature (t_1) R_2: Resistance value at room temp. plus 100°C (t_2) Test Pattern: Room temp., Room temp. + 100°C
Dielectric withstanding voltage JIS-C-5202 5.7	No evidence of flashover, mechanical damage, arcing or insulation break down.	Resistors shall be clamped in the trough of a 90° metallic V-block and shall be tested at AC potential respectively specified in the above list for 60 +10/-0 seconds.
Temperature cycling JIS-C-5202 7.4	Resistance change rate is ±(2% ±0.05Ω) Max. with no evidence of mechanical damage	Resistance change after continuous five cycles for duty cycle specified below. Step / Temperature / Time 1 / -55°C± 3°C / 30 minutes 2 / Room temp. / 10-15 minutes 3 / +155°C± 2°C / 30 minutes 4 / Room temp. / 10-15 minutes
Humidity (Steady state) JIS-C-5202 7.5	Resistance change rate is ±(2% + 0.05Ω) Max. with no evidence of mechanical damage	Temporary resistance change after a 240 hours exposure in a humidity test chamber controlled at 40°C ± 2°C and 90 to 95% relative humidity.
Short-time overload JIS-C-5202 5.5	Resistance change rate is N: ± (1% + 0.05) Max. S: ± (2% + 0.05) Max. with no evidence of mechanical damage.	Permanent resistance change after the application of a potential of 2.5 times RCWV or the max. overload voltage respectively specified in the above list, whichever less for 5 seconds.
Pulse overload JIS-C-5202 5.8	Resistance change rate is N: ± (2% + 0.05) Max. S: ± (5% + 0.05) Max. with no evidence of mechanical damage.	Resistance change after 10,000 cycles (1 second "ON", 25 seconds "OFF") at 4 times RCWV or the max. pulse overload voltage.
Load life in humidity JIS-C-5202 7.9	Resistance change rate is ± (5% + 0.05Ω) Max. with no evidence of mechanical damage	Resistance change after 1,000 hours (1.5 hours "on", 0.5 hour "off") at RCWV in a humidity chamber controlled at 40°C ± 2°C and 90 to 95% relative humidity.
Load life JIS-C-5202 7.10	Resistance change rate is ± (5% + 0.05Ω) Max. with no evidence of mechanical damage	Permanent resistance change after 1,000 hours operating at RCWV, with duty cycle of 1.5 hours "on", 0.5 hour "off" at 70°C ± 2°C ambient.
Terminal strength JIS-C-5202 6.1	With no evidence of mechanical damage	Direct load: Resistance to a 2.5kg direct load for 10 seconds in the direction of the longitudinal axis of the terminal leads. Twist test: Terminal leads shall be bent through 90° at a point of about 6mm from the body of the resistor and shall be rotated through 360 about the original axis of the bent terminal in alternating direction for a total of 3 rotations.
Resistance to soldering heat JIS-C-5202 6.4	Resistance change rate is ± (1% + 0.05Ω) Max. with no evidence of mechanical damage	Permanent resistance change when leads immersed to 3.2 to 4.8mm from the body in 350°C ± 10°C solder for 3 ± 0.5 seconds.
Solderability JIS-C-5202 6.5	95% coverage Min.	The area covered with a new, smooth, clean, shiny and continuous surface free from concentrated pinholes. Test temp. of solder: 235°C ± 5°C Dwell time in solder: 3 +0.5/-0 seconds
Resistance to solvent JIS-C-5202 6.9	No deterioration of protective coatings and markings	Specimens shall be immersed in a bath of trichroethane completely for 3 minutes with ultrasonic.
Flame retardant JIS-C-5202 7.12	No evidence of flaming or arcing	Resistors shall resist flaming or arcing when overloaded up to 16 times RCWV.