



# **Specifications**

Series	Rated power	Max. working voltage	Resistance tolerance	Resistance value	Working temperature	Temperature characteristics
LR21 (0805)	0.25W (1/ 4W)	287mV	F:±1%	100 to 149m $\Omega$	–55 to +125°C	±150ppm/ °C
				150 to $330m\Omega$		±100ppm/ °C
LR32 (1206)	0.5W (1/2W)	707mV	K: ±10%	20 to 50m $\Omega$	–55 to +125°C	±3000ppm/ °C
			F: ±1%	100 to 149m $\Omega$		±150ppm/ °C
				150 to 1000m $\Omega$		±100ppm/ °C
LR50 (1020)	1W	316mV	F: ±1%	20 to 29mΩ	–55 to +125°C	±150ppm/ °C
				30 to 100m $\Omega$		±100ppm/ °C
LR63 (2512)	1W	1000mV	F: ±1%	100 to 1000m $\Omega$	–55 to +125°C	±100ppm/ °C



(Time)

# **Circuit design**

- Once application and assembly environments have been checked, the resistors may be used in conformance with the catalog and the specifications.
- 2) Please consult the manufacturer in advance when the resistors is used in devices such as: devices which deal with human life, i.e. medical devices; devices which are highy public orientated; and devices which demand a high standerd of liability.
- Please use the resistors in conformance with the operating temperature provided in both the catalog and the specifications.
- Please keep voltage under the rated voltage which is applied to the resistor.
- 5) Do not use the resistor in an environment where it might easily exceed the respective provisions concerning shock and vibration specified in the catalog and specifications.
- 6) Please do not use the resistor in the following environments.
  ① State that water, oil, and solvent hang in resistor
  - ② State where poisonous gas (sulfur and chlorine, etc.) exists
  - ③ State that direct sunshine, radiation, and ultraviolet, etc. are irradiated
- 7) There is a thing that resistance changes according to the stuff of the resin when the coating with the resin is given. Please use resin coating after confirming the characteristic.
- There is a thing that resistance changes according to flux and cleaner.
   Please use flux and cleaner after confirming the characteristic.
- 9) Please consult about a lead free products.

### Storage

- 1) Keep storage place temperature +5 to +35°C, humidity 45 to 75% RH.
- 2) Please keep parts out of poisonous gas such as sulfur or chlorine in the air and out of salty moisture, or they may cause rust of terminal and poor solderability. Please consider the abovementioned item after mounting.

#### 3) Soldering iron

 Temperature
 soldering iron 300±5°C\*

 Time
 3 sec. max.

 \*Do not place the soldering iron on the chip. Soldering iron is 30W max.

### Soldering method

1 to 3°C/

90+30 sec

100 50

1) Recommendable temperature profile

