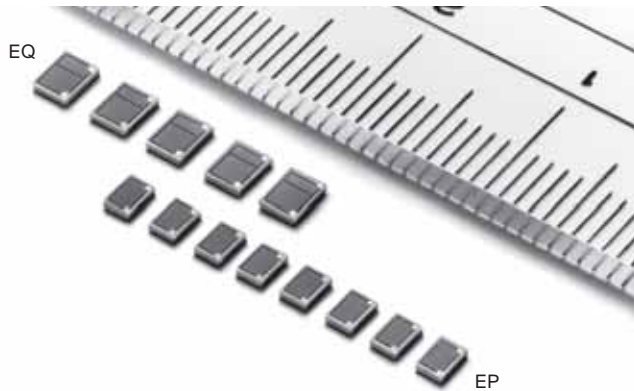


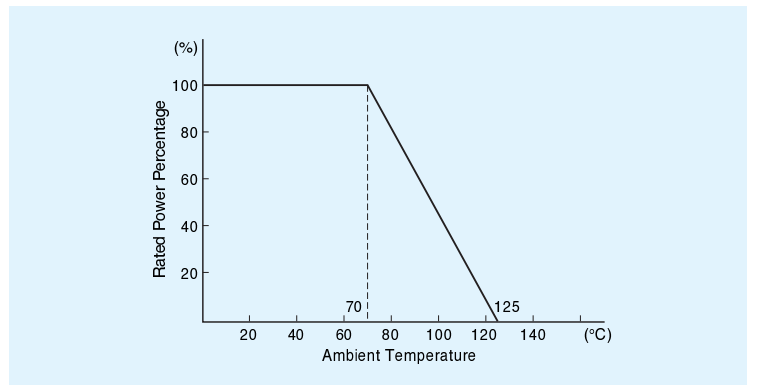
Ultra-Precision SMT Resistor (Wire-Bondable)



TCR, Resistance Range, Tolerance, Rated Power

Type	TCR (ppm/°C) -55°C to +125°C	Resistance Range (Ω)*	Resistance Tolerance (%)	Rated Power (W) at 70°C
EP	0±5 See fig.1	30 to 100	±0.1	0.1
		100 to 30k	±0.05	
EQ		30 to 100	±0.1	0.125
		100 to 60k	±0.05	

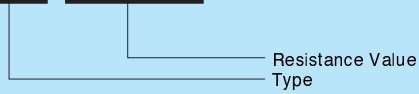
Power Derating Curve



Composition of Type Number

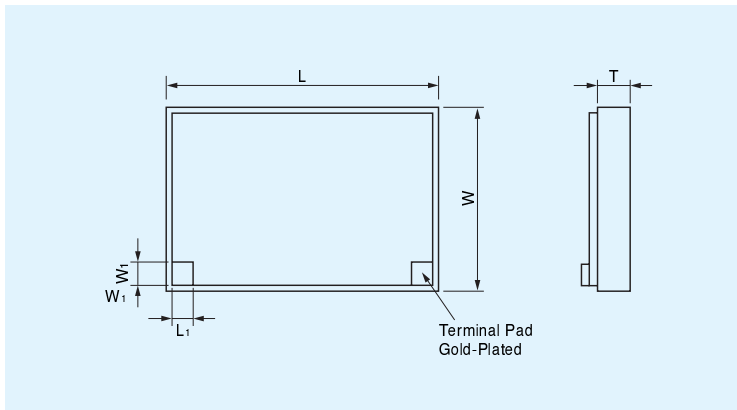
Example:

EQ 10K00



Resistance value, in ohm, is expressed by a series of five characters, four of which represent significant digits. The fifth R or K is a dual-purpose letter that designates both the value range (R for ohmic; K for kilo-ohm) and the location of the decimal point.

Configuration



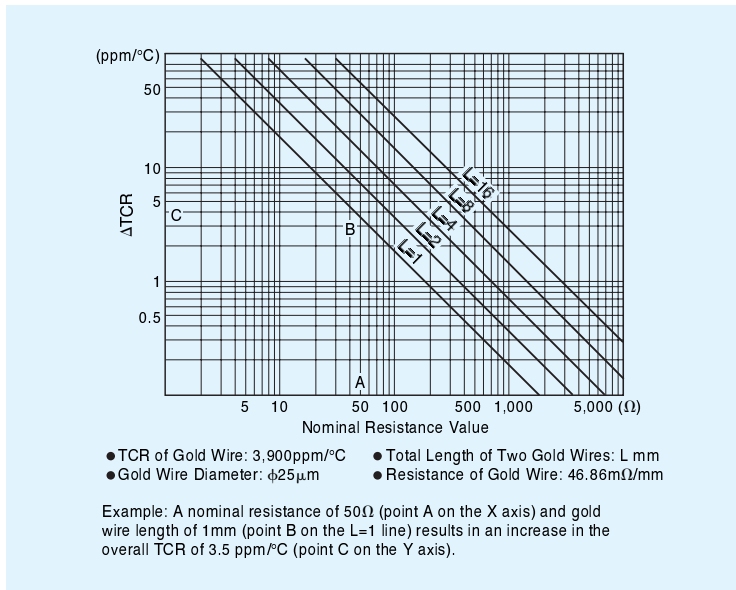
Type	EP	EQ
L	2.2±0.1	4.5±0.1
W	1.6±0.1	3.2±0.1
T	0.4±0.1	
L1	0.25±0.01	
W1	0.25±0.01	

Dimensions in mm

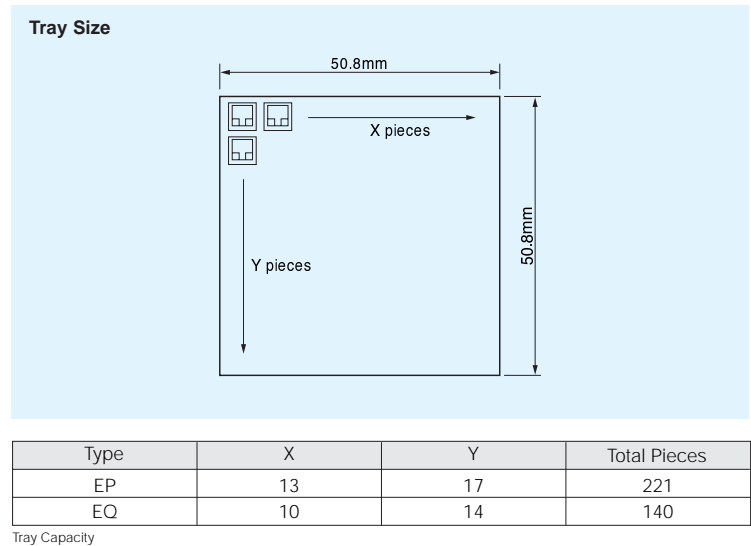
Performance

Parameters	Test Condition	MIL-R-55342 Specification	ALPHA Typical Test Data
Maximum Rated Operating Temperature Working Temperature Range Maximum Working Voltage Maximum Working Current			70°C -65°C to +125°C 40V 350mA
Thermal Shock	-65°C/30 min. ↔ +125°C/30 min., 5 cycles	±0.05%	±0.01%
Resistance to Bonding Exposure Low Temperature Operation Overload	Room Temperature, 4 hrs. to 12 hrs. -65°C, No Load, 1 hr. → Rated Voltage, 45 min. Rated Voltage x 2.5, 5 sec.	±0.05% ±0.05% ±0.05%	±0.01% ±0.01% ±0.01%
Life	70°C, Rated Power, 1.5 hr. – ON, 0.5 hr. – OFF, 1,000 hrs.	±0.05%	±0.03%
Moisture Resistance	+65°C to -10°C, 90% RH to 98% RH, No Load, 10 cycles (240 hrs.)	±0.05%	±0.03%
High Temperature Exposure	125°C, No Load, 100 hrs.	±0.05%	±0.03%

Fig. 1 Effect of Termination Gold Wire on TCR



Chip Tray



Precaution in Using Wire-Bonded Chip Resistor

- Storage**
Storage condition or environment may adversely affect bondability of the terminal pad with wire. Do not store in high temperature and humidity. The recommended storage environment is lower than 40°C, has less than 70% RH humidity and is free from harmful gases such as sulphur and chlorine.
- Caution in Mounting**
 - Mounting Method: Die-bonding
 - Adhesive for Placement: Thixotropic epoxy (temperature of cure $\leq 180^\circ\text{C}$)
 - State of Mounting: shown below
- Recommended Wire Bonding Method**
 - Bonding Method: Thermosonic ball bonding
 - Preheating Temperature: 80°C to 125°C (temperature of the resistors)
 - Connecting Wire: dia. 25 μm gold wire
- Protective Coat**
Avoid direct coating of the resistor with n-methylpyrrolidone.

