DIGI-KEY CORPORATION

July 12, 2006

TECHNICAL DATA

Metal Film Chip Resistor, High Reliability Type

ERA6A Type(2012 Size)

1. Temperature Coefficient of Resistance
2. Short Time Overload
3. Bending Strength
4. Resistance to Soldering Heat
5. High Temperature Exposure
6. Temperature Cycling
7. Humidity
8. Load Life
9. Load Life in Humidity

Panasonic Electronic Devices Co.,Ltd.
Circuit Components Business Unit

APPROVAL	CHECKED	DESIGN
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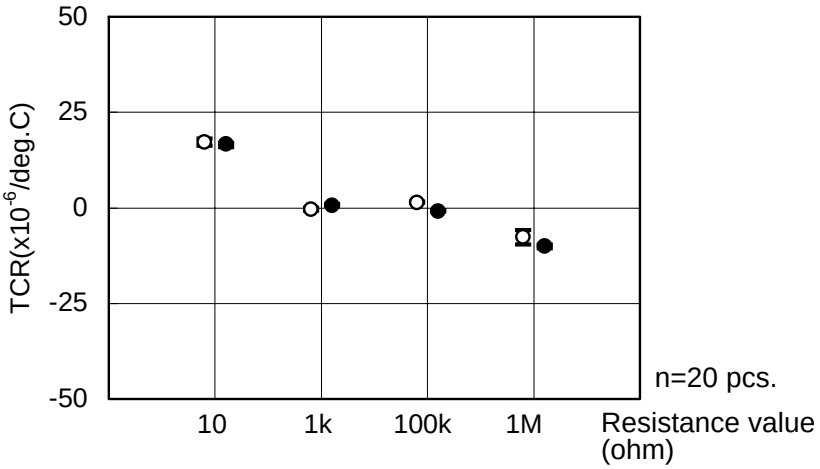
1. Temperature Coefficient of Resistance

Hot : 25 to 125°C ●
Cold : -55 to 125°C ○

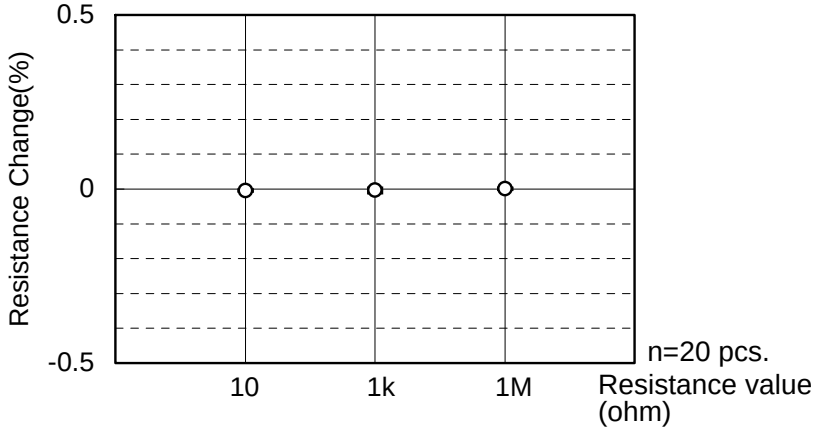
<Specification>
Resistance Range 10Ω～43Ω :
±50×10^{-6}/ °C
Resistance Range 47Ω～1MΩ :
±25×10^{-6}/ °C



2. Short Time Overload

Rated Voltage*[1] x 2.5 times, 5 seconds
(*1 Maximum Overloaded Voltage :200V)

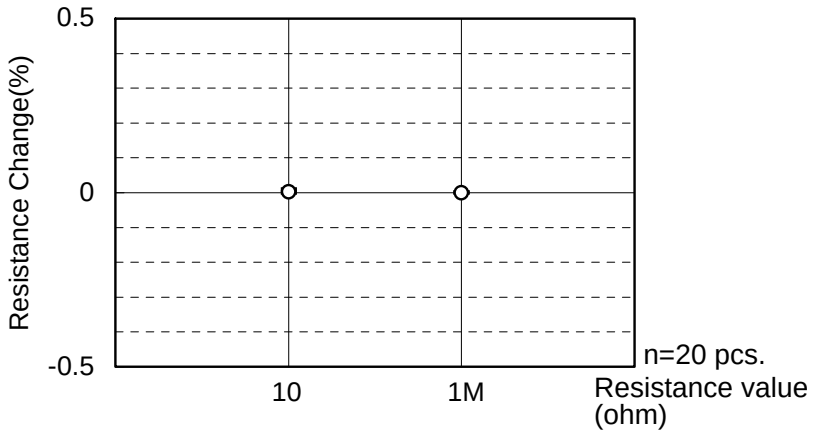
<Specification>
Resisntance tolerance ±0.5%:
ΔR：± (0.5% +0.05 Ω)
Resisntance tolerance ±0.1%:
ΔR：± (0.1% +0.05 Ω)



3. Bending strength

Substrate : Glass epoxy, t=1.6mm
Bending distance : 3mm
Bending time : 10 seconds

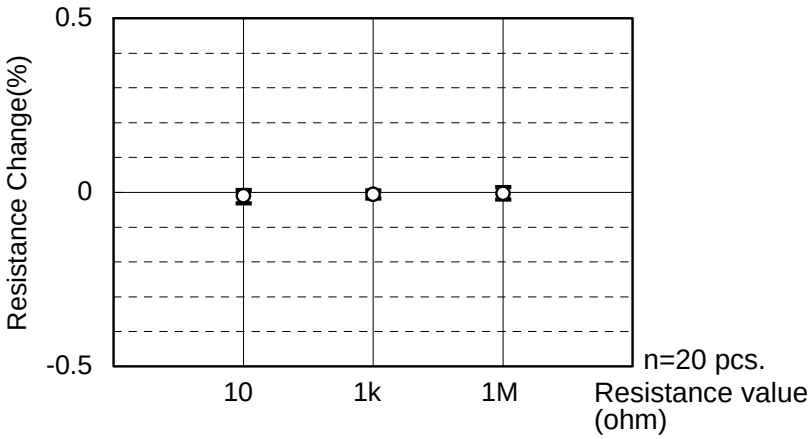
<Specification>
Resisntance tolerance ±0.5%:
ΔR：± (0.5% +0.05 Ω)
Resisntance tolerance ±0.1%:
ΔR：± (0.1% +0.05 Ω)
and no mechanical damage



4. Resistance to Soldering Heat

Solder bath : 270°C±3°C
Dipping time : 10 s ± 1 s

<Specification>
Resisntance tolerance ±0.5%:
ΔR：± (0.5% +0.05 Ω)
Resisntance tolerance ±0.1%:
ΔR：± (0.1% +0.05 Ω)

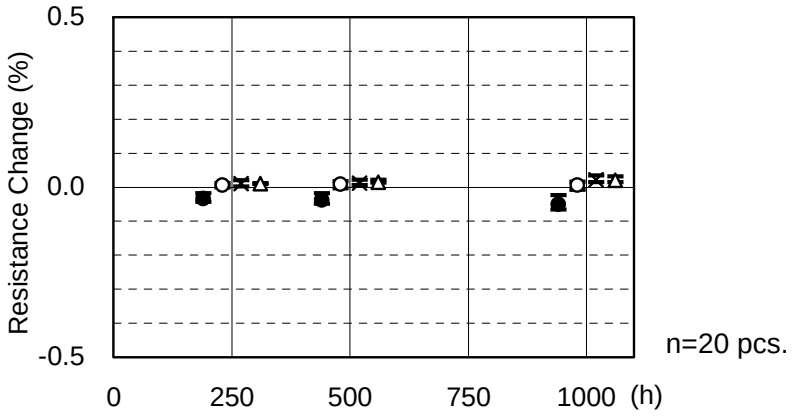


5. High Temperature Exposure

155 °C, 1000 hours,
without load

<Specification>
Resisntance tolerance ±0.5%:
ΔR：± (0.5% +0.05 Ω)
Resisntance tolerance ±0.1%:
ΔR：± (0.1% +0.05 Ω)

●: 10 Ω ○: 1k Ω
×: 100kΩ △: 1MΩ

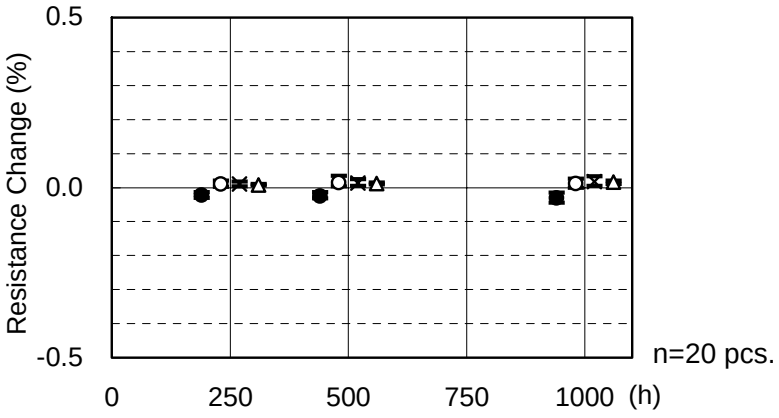


6. Temperature Cycling

-55 °C 30 minutes
↓ ↑
155 °C 30 minutes

<Specification>
Resisntance tolerance ±0.5%:
ΔR：± (0.5% +0.05 Ω)
Resisntance tolerance ±0.1%:
ΔR：± (0.1% +0.05 Ω)
for 5 cycles

●: 10 Ω ○: 1k Ω
×: 100kΩ △: 1MΩ

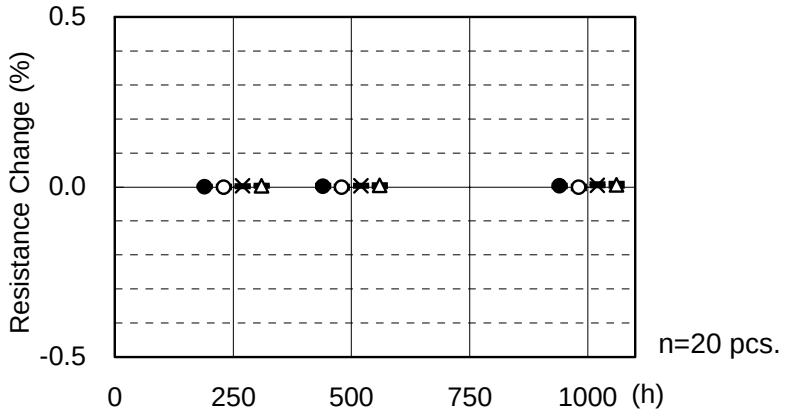


7. Humidity

85 °C ± 2 °C, 85%RH
1000 hours, without load

<Specification>
Resisntance tolerance ±0.5%:
ΔR：± (0.5% +0.05 Ω)
Resisntance tolerance ±0.1%:
ΔR：± (0.1% +0.05 Ω)

●: 10 Ω ○: 1k Ω
×: 100kΩ △: 1MΩ

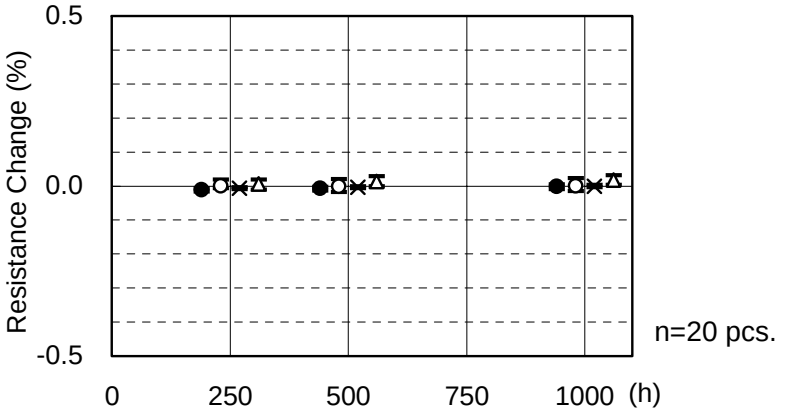


8. Load Life

RCWV 1.5 hours ON -
0.5 hours OFF, at 70 °C ± 2 °C
1000 hours

<Specification>
Resisntance tolerance ±0.5%:
ΔR：± (0.5% +0.05 Ω)
Resisntance tolerance ±0.1%:
ΔR：± (0.1% +0.05 Ω)

●: 10 Ω ○: 1k Ω
×: 100kΩ △: 1MΩ



9. Load Life in Humidity

RCWV 1.5 hours ON -0.5 hours OFF, at
85 °C ± 2 °C, 85%RH, 1000 hours
Applied Voltage:
10 to 100kΩ : Rated voltage
Over 100kΩ : 23.7V

<Specification>
Resisntance tolerance ±0.5%:
ΔR：± (0.5% +0.05 Ω)
Resisntance tolerance ±0.1%:
ΔR：± (0.1% +0.05 Ω)

●: 10 Ω ○: 1k Ω
×: 100kΩ △: 1MΩ