

# FIXED WIRE WOUND RESISTORS

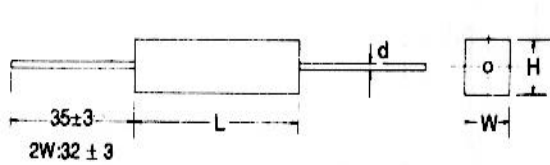
## (CEMENT TYPE)

KOME

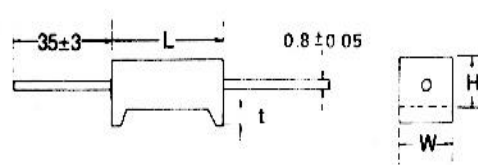
### Features:

- 1 Materials used are all non-inflammable. So that even if overcurrent flows, no self-ignition occurs, thus giving high safety.
- 2 Hermetically sealed. Sealed in a highly insulated box type cased with special cement.
- 3 Highly heat resistant and moisture resistant. High mechanical strength.
- 4 Can be mounted with high degree of safety. High heat radiation effect. Box type closely bonded to the chassis. Most suitable for printed wiring.
- 5 Use TH-SQZ , TH-SQH type according to the condition of the place where it is mounted and the way it is mounted.
- 6 Can be used as complying with safety standards, such as UL Standard. Electric Apparatus Control Law, etc ...

SQP



SQT



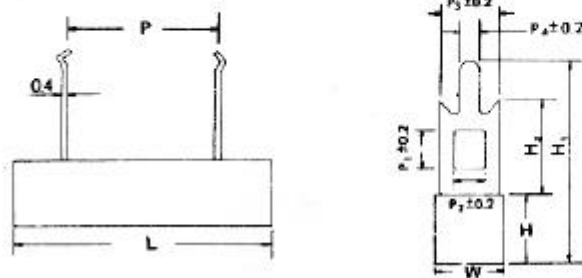
| Type | Dimension (mm) |      |       |        | Resistance Range (Ω) |           |       | Max Working Voltage |
|------|----------------|------|-------|--------|----------------------|-----------|-------|---------------------|
|      | W±1            | H±1  | L±1.5 | d±0.05 | SQP                  | RS + SQP  |       |                     |
| 2W   | 7              | 7    | 18    | 0.65   | 0.1~82               |           | 15V   |                     |
| 3W   | 8              | 8    | 22    | 0.8    | 0.1~180              | 181~33K   | 350V  |                     |
| 5W   | 10             | 9    | 22    | 0.8    | 0.1~180              | 181~50K   | 350V  |                     |
| 7W   | 10             | 9    | 35    | 0.8    | 0.1~430              | 431~50K   | 500V  |                     |
| 10W  | 10             | 9    | 48    | 0.8    | 0.1~470              | 471~50K   | 750V  |                     |
| 15W  | 12.5           | 11.5 | 48    | 0.8    | 0.5~600              | 601~150K  | 1000V |                     |
| 20W  | 14             | 13.5 | 60    | 0.8    | 0.5~1K               | 1.1K~150K | 1000V |                     |
| 25W  | 14             | 13.5 | 60    | 0.8    | 0.5~1K               | 1.1K~150K | 1000V |                     |

| Type | Dimension (mm) |     |       |       | Resistance Range (Ω) |
|------|----------------|-----|-------|-------|----------------------|
|      | W±1            | H±1 | L±1.5 | t±0.5 |                      |
| SQT  |                |     |       |       |                      |
| 5W   | 10             | 9   | 22    | 1.5   | 0.1~50K              |
| 7W   | 10             | 9   | 35    | 3.0   | 0.1~50K              |
| 10W  | 10             | 9   | 48    | 3.0   | 0.1~50K              |

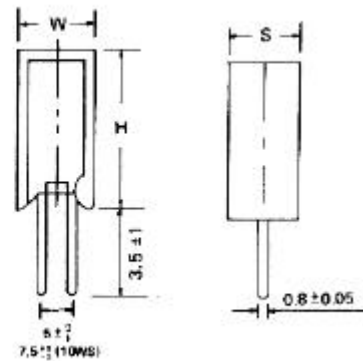
Note: Wirewound (SQT) & Metal Oxide Film (RS+ SQT) resistance-range detail same as SQP type

- Notes:
1. Max Overload Voltage is 2 times of Max Working Voltage.
  2. Too low or too high ohmic value can be supplied only case by case.
  3. Resistance Value under 0.5Ω, the tolerance shall be ±10%
  4. Max Working Voltage is fit for all SQ types

SQZ



SQM



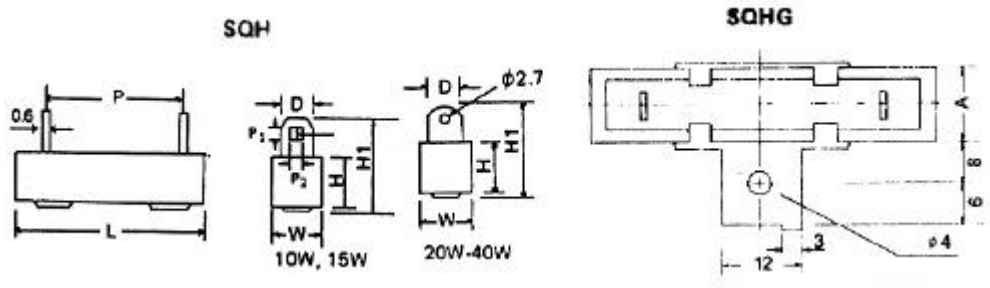
| Type | Dimension (mm) |      |     |         |     |    |    |     |      |      | Resistance Range(Ω) |           |
|------|----------------|------|-----|---------|-----|----|----|-----|------|------|---------------------|-----------|
|      | L±1.5          | W±1  | H±1 | P±1.5   | P1  | P2 | P3 | P4  | H1±1 | H2±1 | SQZ                 | RS + SQZ  |
| 5W   | 28(25)         | 10   | 10  | 15(9.5) | 4.2 | 2  | 7  | 1.5 | 25   | 10.5 | 0.1~130             | 131~50K   |
| 7W   | 36             | 10   | 10  | 20      | 4.2 | 2  | 7  | 1.5 | 25   | 10.5 | 0.1~430             | 431~50K   |
| 10W  | 48             | 10   | 10  | 32      | 4.2 | 2  | 7  | 1.5 | 25   | 10.5 | 0.2~470             | 471~50K   |
| 15W  | 48             | 12.5 | 12  | 32      | 4.2 | 2  | 7  | 1.5 | 26   | 10.5 | 1~600               | 601~150K  |
| 20W  | 60             | 15   | 13  | 42      | 7   | 4  | 10 | 3   | 36   | 15.0 | 1~1K                | 1.1K~150K |
| 25W  | 60             | 15   | 13  | 42      | 7   | 4  | 10 | 3   | 36   | 15.0 | 1~1K                | 1.1K~150K |
| 30W  | 75             | 19   | 19  | 50      | 7   | 4  | 10 | 3   | 36   | 15.0 | 1~1K                |           |
| 40W  | 75             | 19   | 19  | 50      | 7   | 4  | 10 | 3   | 36   | 15.0 | 1~1K                |           |
| 50W  | 90             | 19   | 19  | 65      | 7   | 4  | 10 | 3   | 60   | 30   | 1~1K                |           |

| Type | Dimension (mm) |     |     | Resistance Range(Ω) |           |
|------|----------------|-----|-----|---------------------|-----------|
|      | H±1.5          | W±1 | S±1 | SQM                 | RS + SQM  |
| 2W   | 20             | 11  | 7   | 0.1~82              | 83Ω~10K   |
| 3W   | 25             | 12  | 8   | 0.1~180             | 181Ω~50K  |
| 5W   | 25             | 13  | 9   | 0.1~180             | 181Ω~50K  |
| 7W   | 39             | 13  | 9   | 0.1~430             | 431Ω~50K  |
| 10W  | 51             | 13  | 9   | 0.1~470             | 471Ω~75K  |
| 10WS | 35             | 16  | 12  | 0.1~360             | 361Ω~100K |
|      |                |     |     |                     |           |
|      |                |     |     |                     |           |

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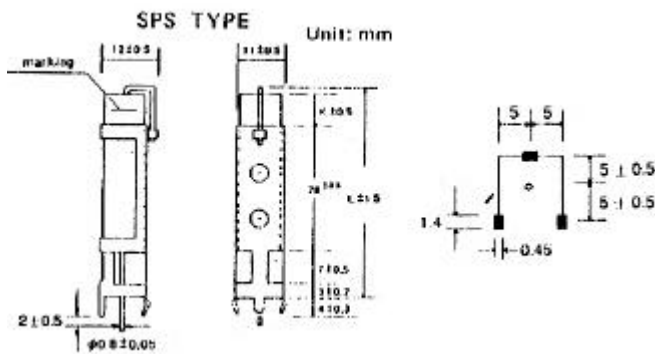
(CEMENT TYPE)

KOME

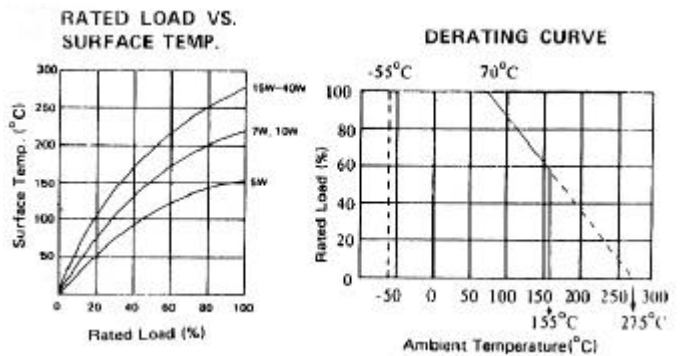


| Type | Dimension (mm) |           |             |            |            |             |              |              |         | Resistance Range ( $\Omega$ ) |  |
|------|----------------|-----------|-------------|------------|------------|-------------|--------------|--------------|---------|-------------------------------|--|
|      | W $\pm$ 1      | H $\pm$ 1 | L $\pm$ 1.5 | P          | H1 $\pm$ 1 | D $\pm$ 0.5 | P1 $\pm$ 0.2 | P2 $\pm$ 0.2 | SQH     | RS + SQH                      |  |
| 10W  | 10             | 10        | 48          | 32 $\pm$ 1 | 21         | 5           | 2.5          | 1.7          | 0.5~600 | 601~50K                       |  |
| 15W  | 12.5           | 12        | 48          | 32 $\pm$ 1 | 21         | 5           | 2.5          | 1.7          | 1~600   | 601~150K                      |  |
| 20W  | 14.5           | 13.5      | 60          | 42 $\pm$ 1 | 24         | 6           | 3.0          | 2.5          | 1~1K    | 1.1K~150K                     |  |
| 30W  | 19             | 19        | 75          | 55 $\pm$ 2 | 31         | 7.5         |              |              | 1~2K    |                               |  |
| 40W  | 19             | 19        | 90          | 67 $\pm$ 2 | 31         | 7.5         |              |              | 1~2K    |                               |  |

Notes: 1. Max Overload Voltage is 2 times of Max Working Voltage.  
2. Too low or too high ohmic value can be supplied only case by case.



| Type | Dimension (mm) |             | Resistance Range |          |
|------|----------------|-------------|------------------|----------|
|      | L $\pm$ 1.5    | K $\pm$ 0.5 | SPS              | RS + SPS |
| 7W   | 48             | 8.5         | 0.1~430          | 431~50K  |
| 10W  | 60             | 20          | 0.1~470          | 471~50K  |



## ELECTRICAL PERFORMANCE

| Test Items               | Condition                            | Spec.           |
|--------------------------|--------------------------------------|-----------------|
| Resistance Temp. Coeff.  | -55°C ~ 155°C                        | $\pm$ 300ppm/°C |
| Short Time Over Load     | 10 times of rated wattage for 5 sec. | $\pm$ 2%        |
| Rated Load               | Rated wattage for 30 min.            | $\pm$ 1%        |
| Voltage Withstanding     | 1000V AC 1 min.                      | no change       |
| Insulation Resistance    | 500V megger                          | 1000M $\Omega$  |
| Temp. Cycle              | -30°C ~ 85°C for 5 cycles            | $\pm$ 1%        |
| Load Life                | 70°C on-off cycle 1000 hrs.          | $\pm$ 5%        |
| Moisture-proof Load Life | 40°C 95% RH on-off cycle 1000 hrs.   | $\pm$ 5%        |
| Incombustibility         | 16 times of rated wattage for 5 min. | not flamed      |

Notes: 1. Max Overload Voltage is 2 times of Max Working Voltage.  
2. Too low or too high ohmic value can be supplied only case by case  
3. "RS + SQ" short time over load is 5 times of rated wattage for 5 sec.

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