



CPW, SQM, SQT, SQZA, SQZB, SQHG, SQH, SPS

LEAD FREE

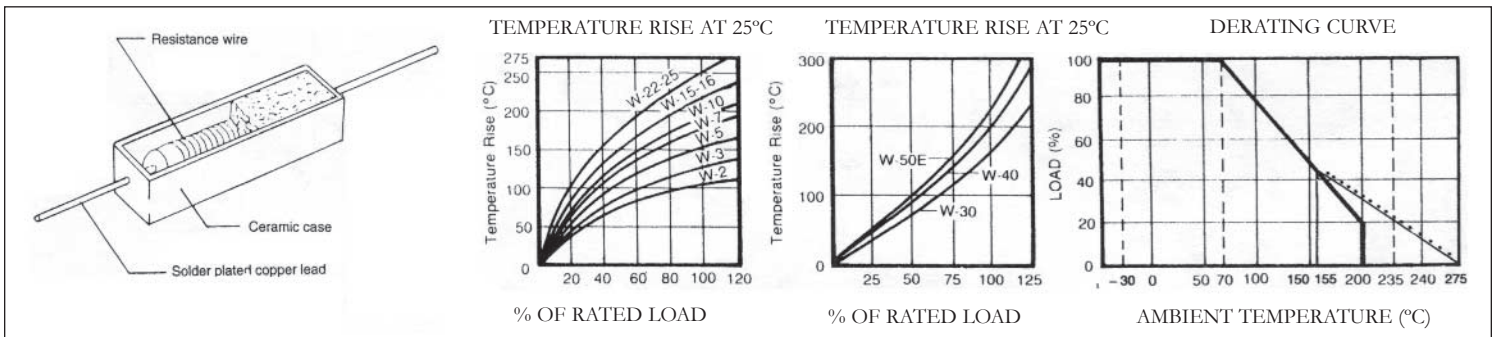
(MIL Type LRW)

INTRODUCTION

1. As applying non-flammable materials, even if over current flows, there will be no self-ignition occurring.
2. Completely insulated character suitable for printed circuit board mounting.
3. Precise resistance value with long life proof.
4. Super heat dissipation; small linear temperature coefficient.
5. Instant overload capability; low noise figure and without annual shift on resistance value.
6. For high resistance value, the winding core is replaced by Metal Oxide Film cutting core (MO).

FEATURES

- Exceptionally small and sturdy; mechanically safe. MEGASTAR-OHM resistors have excellent electrical characteristics.
- The materials used and the construction techniques ensure excellent flame resistance, arc resistance and moisture resistance as well as self-extinguishing capabilities. They will withstand the most rigorous loading test.
- As resistors in radio and television receivers, the hazardous conditions of smoking and redheat can be completely prevented by the proper choice of power resistors.
- Tolerances of 5%, and 10% are standard.
- Applicable specifications: EIA RS-344 and EIA RC-649.
- Non-inductive types available on all series.



| Characteristics | Condition | Spec. |
|------------------------------|--|-------------|
| Resistance Temp. coefficient | -55°C ~ 155°C | ±300 ppm/°C |
| Short-time Overload | 5 times of rated wattage for 5 seconds | ±2% |
| Rate Load | Rate watt 30 min. | ±1% |
| Voltage Durability | 1000V AC 1 min. | not changed |
| Insulation Resistance | 500V Megger | 500MΩ |
| Temp. Cycle | -30°C ~ 85°C 5 cycles | ±1% |
| Load Life | 70°C on-off cycle 1,000 hrs. | ±5% |
| Moisture-proof Load Life | 40°C 95% RH on-off cycle 500 hrs. | ±3% |
| Incombustibility | 16 times of rated wattage for 5 min. | not flamed |

Part Numbering system

CPW-2

5%

22R0

B

| Type / Rated Power | |
|--------------------|----------------|
| CPW | 2W ↓ 40W |
| SQM | |
| SQT | |
| SQZA | |
| SQZB | |
| SQHG | |
| SQH | |
| SPS | |

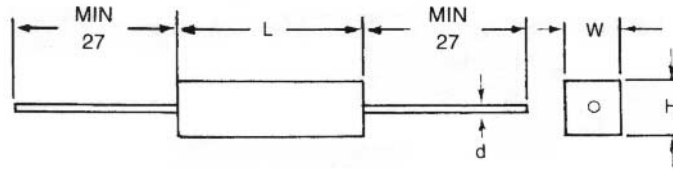
| Resistance tolerance |
|----------------------|
| ±10% |
| ±5% |
| ±2% |
| ±1% |

| Nominal Resistance | | |
|----------------------------|-------------------|------|
| Code | Description | |
| 0R01 | 0.01 | OHMs |
| 2R2 | 2.2 | OHMs |
| 22R | 22 | OHMs |
| 100R | 100 | OHMs |
| 2K | 2x10 ³ | OHMs |
| Special value upon request | | |

| Packaging | |
|-----------|----------------------|
| Code | Description |
| Nil | Bulk |
| NI | Bulk & Non-inductive |



CPW

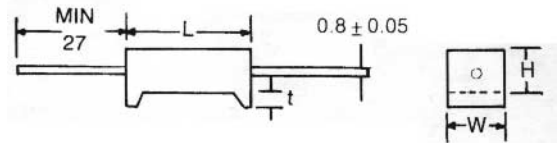


| Type | Power Rating | Dimensions (mm) | | | | Resistance Range () | | Max Working Voltage |
|--------|--------------|-----------------|-------------|-------------|--------------|----------------------|---------|---------------------|
| | | $L \pm 0.5$ | $W \pm 0.5$ | $H \pm 0.5$ | $d \pm 0.03$ | Wire Wound | MO | |
| CPW-2 | 2W | 18.0 | 7.0 | 7.0 | 0.65 | 0.1 ~120 | 120~20K | 150V |
| CPW-3 | 3W | 22.0 | 8.0 | 8.0 | 0.8 | 0.1 ~150 | 150~33K | 350V |
| CPW-5 | 5W | 22.0 | 9.5 | 9.0 | 0.8 | 0.1 ~200 | 201~50K | 350V |
| CPW-7 | 7W | 35.0 | 9.5 | 9.0 | 0.8 | 0.1 ~500 | 501~50K | 500V |
| CPW-10 | 10W | 48.0 | 9.5 | 9.0 | 0.8 | 0.1 ~500 | 501~50K | 750V |
| CPW-15 | 15W | 48.0 | 12.5 | 12.0 | 0.8 | 0.5 ~1K | 1K~150K | 1000V |
| CPW-20 | 20W | 60.0 | 14.0 | 13.5 | 0.8 | 0.5 ~1K | 1K~150K | 1000V |

NOTE: Non-inductive type up to 27 .

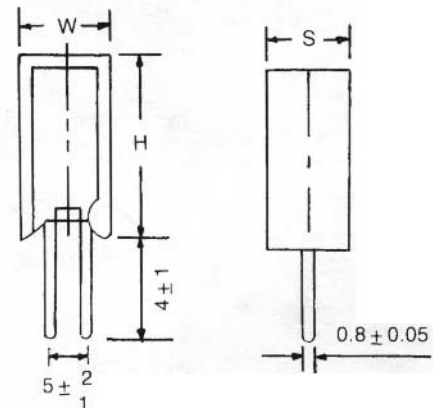
| Type | Power Rating | Dimensions (mm) | | | | Resistance Range () | |
|--------|--------------|-----------------|-----------|-------------|-------------|----------------------|---------|
| | | $W \pm 1$ | $H \pm 1$ | $L \pm 1.5$ | $t \pm 0.5$ | Wire Wound | MO |
| SQT-5 | 5W | 10 | 9 | 22 | 1.5 | 0.1 ~50 | 51~50K |
| SQT-7 | 7W | 10 | 9 | 35 | 3.0 | 0.1 ~500 | 501~47K |
| SQT-10 | 10W | 10 | 9 | 48 | 3.0 | 0.1 ~500 | 501~47K |

SQT



SQM

| Type | Power Rating | Dimensions (mm) | | | Resistance Range () | |
|---------|--------------|-----------------|-----------|-----------|----------------------|---------|
| | | $H \pm 1.5$ | $W \pm 1$ | $S \pm 1$ | Wire Wound | MO |
| SQM-2 | 2W | 20 | 11 | 7.5 | 0.1 ~20 | 20~47K |
| SQM-3 | 3W | 25 | 12 | 9 | 0.1 ~50 | 50~47K |
| SQM-5 | 5W | 25 | 13 | 9 | 0.1 ~50 | 100~47K |
| SQM-7 | 7W | 39 | 13 | 9 | 0.1 ~500 | 501~47K |
| SQM-10 | 10W | 51 | 13 | 9 | 0.1 ~500 | 501~47K |
| SQM-10S | 10WS | 35 | 16 | 12 | 0.1 ~500 | 501~47K |

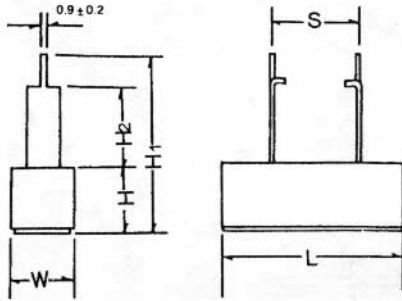


NOTE: Values lower than 0.1 OHM and higher than 47K OHM are available upon request.

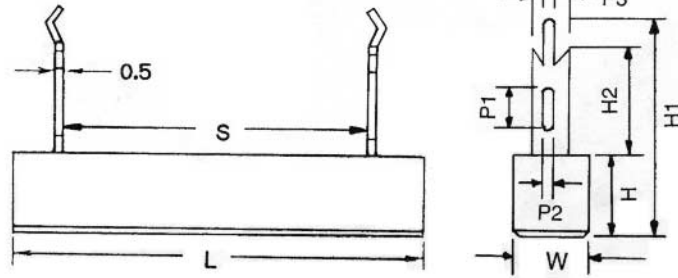


SQZ

A TYPE



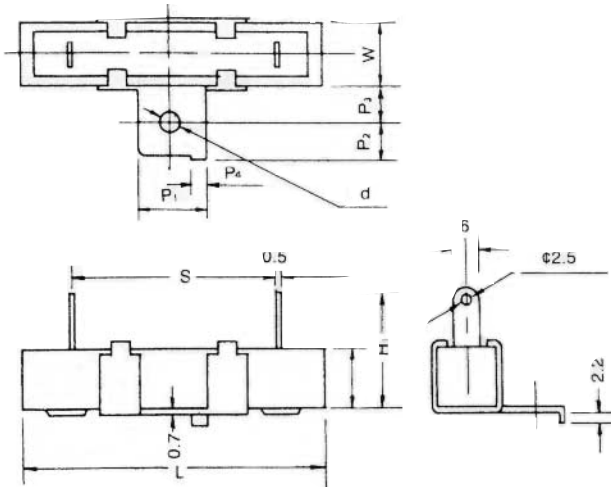
B TYPE



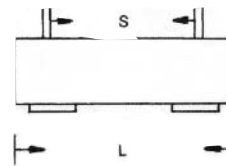
| Type | Type | Power Rating (W) | Resistance Range () | | Dimensions (mm) | | | | | | | | | |
|---------|---------|------------------|----------------------|-----------|-----------------|------|------|------|------|------|-----|-----|------|-----|
| | | | Wire Wound | MO | L | H | W | S | H1 | H2 | P1 | P2 | P3 | P4 |
| SQZA-3S | SQZB-3S | 3 mini | 0.1 -50 | 51 -50K | 22.0 | 9.5 | 9.5 | 10.0 | 23.0 | 12.0 | 4.0 | 2.0 | 5.0 | 1.4 |
| SQZA-5S | SQZB-5S | 5 mini | 0.1 -50 | 51 -50K | 25.0 | 9.5 | 9.5 | 10.0 | 24.0 | 12.0 | 4.0 | 2.0 | 5.0 | 1.4 |
| SQZA-5 | SQZB-3S | 5 | 0.1 -200 | 201 -50K | 27.5 | 9.5 | 9.5 | 15.0 | 24.0 | 9.5 | 4.0 | 2.0 | 5.0 | 1.4 |
| SQZA-7 | SQZB-5S | 7 | 0.1 -200 | 201 -100K | 35.0 | 9.5 | 9.5 | 22 | 24.0 | 9.5 | 4.0 | 2.0 | 5.0 | 1.4 |
| SQZA-10 | SQZB-10 | 10 | 0.2 -500 | 501 -100K | 48.0 | 9.5 | 9.5 | 32 | 24.0 | 9.5 | 4.0 | 2.0 | 5.0 | 1.4 |
| SQZA-15 | SQZB-15 | 15 | 0.5 -600 | 601 -100K | 48.0 | 12.5 | 12.5 | 32 | 34.5 | 15.0 | 7.0 | 6.0 | 10.0 | 2.7 |
| SQZA-20 | SQZB-20 | 20 | 0.5 -1K | 1.1 -100K | 63.5 | 12.5 | 12.5 | 45 | 34.5 | 15.0 | 7.0 | 6.0 | 10.0 | 2.7 |

NOTE: Resistance up to 50 maximum for non-inductive type.

SQHG



SQH

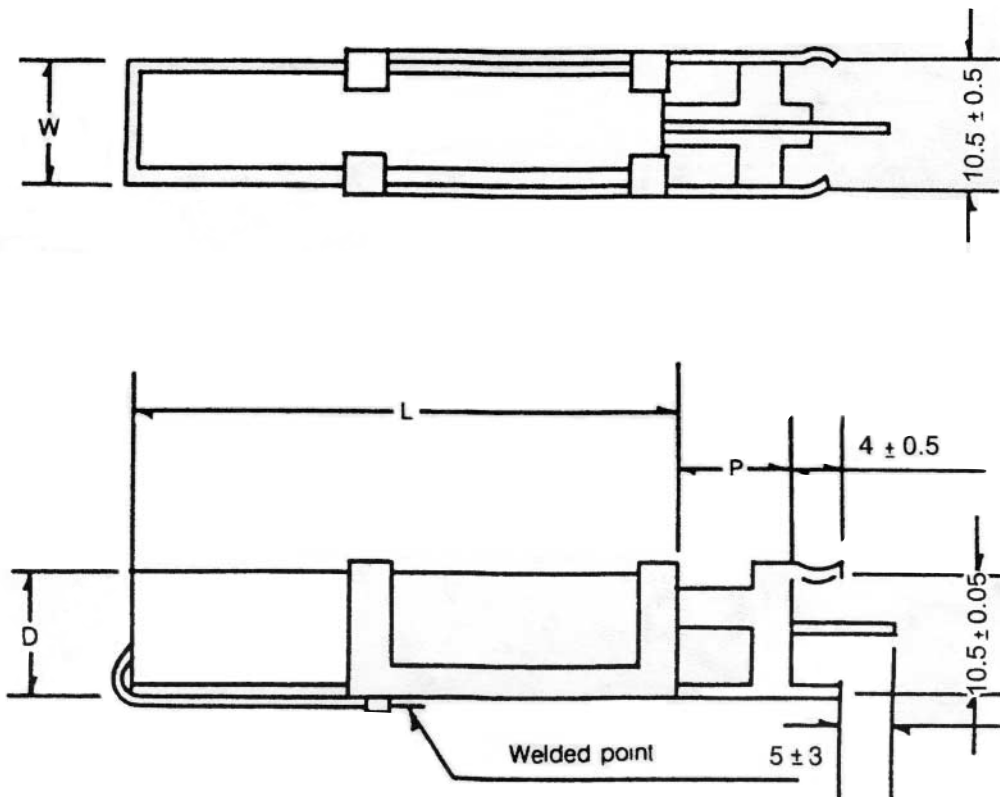


| Type | Type | Power Rating (W) | Resistance Range () | | Dimensions (mm) | | | | | | | | | |
|--------|---------|------------------|----------------------|-----------|-----------------|------|------|------|------|------|------|------|------|---|
| | | | Wire Wound | MO | L±2 | H±1 | W±1 | S±1 | H1±1 | P1±1 | P2±1 | P3±1 | P4±1 | d |
| SQH-10 | SQHG-10 | 10 | 0.5 -500 | 501 -50K | 48.0 | 10.0 | 10.0 | 32.0 | 21.0 | 12.0 | 6.0 | 8.0 | 3.0 | 4 |
| SQH-15 | SQHG-15 | 15 | 0.5 -600 | 601 -150K | 48.0 | 12.0 | 12.0 | 32.0 | 21.0 | 12.0 | 6.0 | 8.0 | 3.0 | 4 |
| SQH-20 | SQHG-20 | 20 | 0.5 -1K | 1.1 -150K | 63.7 | 12.0 | 12.0 | 42.0 | 24.0 | 12.0 | 6.0 | 8.0 | 3.0 | 4 |
| SQH-30 | SQHG-30 | 30 | 1 -2K | | 75.0 | 19.0 | 18.0 | 56.0 | 30.0 | 17.0 | 8.0 | 10.0 | 3.0 | 4 |
| SQH-40 | SQHG-40 | 40 | 1 -2K | | 90.0 | 19.0 | 18.0 | 68.0 | 30.0 | 17.0 | 8.0 | 10.0 | 3.0 | 4 |

NOTE: Resistance up to 15 maximum for non-inductive type.



SPS TYPE



| Type | Power Rating (W) | Dimensions (mm) ± 1 mm | | | | Resistance Range | |
|--------|------------------|----------------------------|-----------|-----------|-----------|------------------|----------|
| | | W ± 2 | D ± 1 | L ± 1 | P ± 1 | Wire Wound | MO |
| SPS-5 | 5 | 10 | 9 | 22 | 5 | 0.1 -50 | 56 -50K |
| SPS-7 | 7 | 10 | 9 | 35 | 10 | 0.1 -300 | 300 -50K |
| SPS-10 | 10 | 10 | 9 | 48 | 10 | 0.1 -500 | 500 -50K |
| SPS-15 | 15 | 12 | 13 | 48 | 10 | 0.1 -1K | 1K -50K |
| SPS-20 | 20 | 12 | 13 | 60 | 10 | 0.1 -1K | 1K -50K |