



TACHAI CHIP RESISTOR

RoHS compliant and Halogen Free



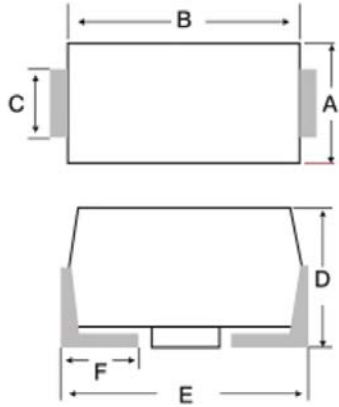
POWER WIRE WOUND CHIP RESISTORS (SMW)

Flameproof UL94V0 molded package, resistant to heat, humidity and insulation.
Special design for automatic surface mounting.
Excellent mechanical strength and electrical stability.
Reducing assembly costs.

SMW

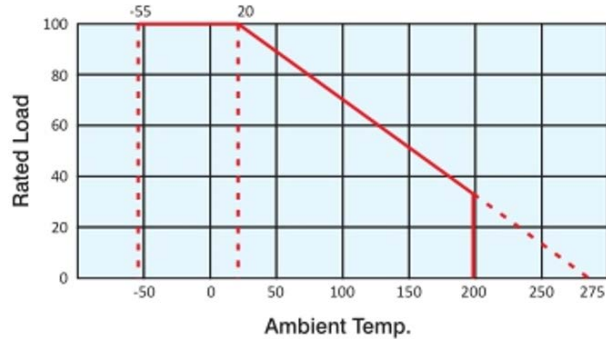
ELECTRICAL AND MACHANCAL PERFORMANCE

| Characteristics | Standards | Test Methods |
|---------------------------------|--|--|
| Resistance Tolerance | $\pm 5\%(K)$ or $\pm 1\%(G)$ | -- |
| Resistance Temp. Coeff. | $\pm 200\text{ppm} / ^\circ\text{C}$ | $-55^\circ\text{C} \sim 200^\circ\text{C}$ |
| Power Rating Load | Surface temp. 275°C MAX $\Delta R/R \leq \pm 1\%$ | Rated voltage for 30 minutes |
| Short Time Overload | $\pm 1\%$ | 5 times of rated wattage for 5 seconds. |
| Dielectric Withstanding Voltage | No evidence of mechanical damage or insulation breakdown. | AC 500V for 1 minutes |
| Insulation Resistance | 10,000M Ω | DC 500V megger |
| Solder-ability | Minimum 95% coverage | $235 \pm 5^\circ\text{C}$ for 2 seconds |
| Resistance to Soldering Heat | No evidence of mechanical damage. $\Delta R/R \leq \pm 1\%$ | $270 \pm 5^\circ\text{C}$ for 10 ± 1 seconds |



| Rated Wattage | A \pm 0.3 | B \pm 0.3 | C \pm 0.3 | D \pm 0.3 | E \pm 0.3 | F \pm 0.3 | Resistance Range(Ω) |
|---------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------------------|
| 2W | 4.0 | 6.7 | 1.4 | 3.55 | 7.9 | 1.5 | 0.1~200 |
| 3W | 5.5 | 10.5 | 1.7 | 5.0 | 12 | 2.3 | 0.1~300 |
| 5W | 7.3 | 13.5 | 1.7 | 6.8 | 17 | 2.5 | 0.1~680 |

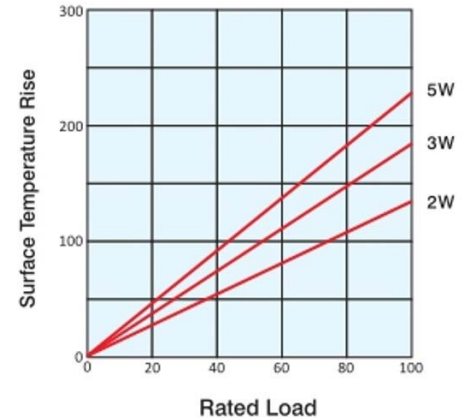
❖ Derating Curve



SMW
 ITEM NO.
TSMW-2W-XXX-K

A: Type
B: Watt (2/3/5)
C: Ω
D: Tolerance (K/G)

❖ Surface Temp. Raise Curve





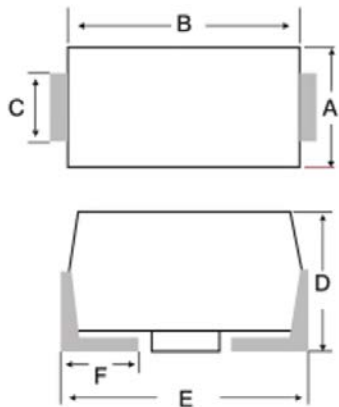
POWER METAL FILM CHIP RESISTORS (SMF)

Flameproof UL94V0 molded package, resistant to heat, humidity and insulation.
Special design for automatic surface mounting.
Excellent mechanical strength and electrical stability.
Reducing assembly costs.

SMF

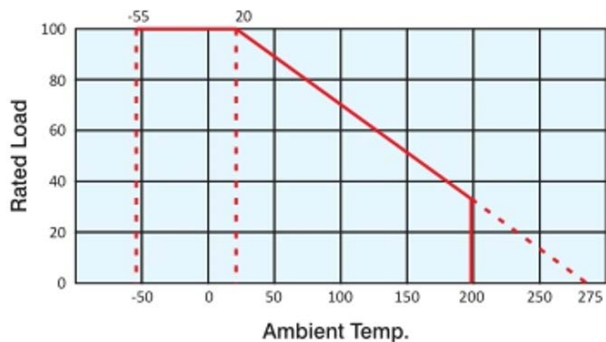
ELECTRICAL AND MACHANCAL PERFORMANCE

| Characteristics | Standards | Test Methods |
|---------------------------------|--|--|
| Resistance Tolerance | $\pm 5\%(K)$ or $\pm 1\%(G)$ | -- |
| Resistance Temp. Coeff. | $\pm 100\text{ppm} / ^\circ\text{C}$ | $-55^\circ\text{C} \sim 200^\circ\text{C}$ |
| Power Rating Load | Surface temp. 275°C MAX $\Delta R/R \leq \pm 1\%$ | Rated voltage for 30 minutes |
| Short Time Overload | $\pm 0.5\%$ | 5 times of rated wattage for 5 seconds. |
| Dielectric Withstanding Voltage | No evidence of mechanical damage or insulation breakdown. | AC 500V for 1 minutes |
| Insulation Resistance | 10,000M Ω | DC 500V megger |
| Solder-ability | Minimum 95% coverage | $235 \pm 5^\circ\text{C}$ for 2 seconds |
| Resistance to Soldering Heat | No evidence of mechanical damage. $\Delta R/R \leq \pm 1\%$ | $270 \pm 5^\circ\text{C}$ for 10 ± 1 seconds |



| Rated Wattage | A±0.3 | B±0.3 | C±0.3 | D±0.3 | E±0.3 | F±0.3 | Resistance Range(Ω) | MAX Working Vol. |
|---------------|-------|-------|-------|-------|-------|-------|---------------------|------------------|
| 2W | 4.0 | 6.7 | 1.4 | 3.55 | 7.9 | 1.5 | 10~2M | 300V |
| 3W | 5.5 | 10.5 | 1.7 | 5.0 | 12 | 2.3 | 10~2M | 500V |
| 5W | 7.3 | 13.5 | 1.7 | 6.8 | 17 | 2.5 | 10~2M | 500V |

❖ Derating Curve



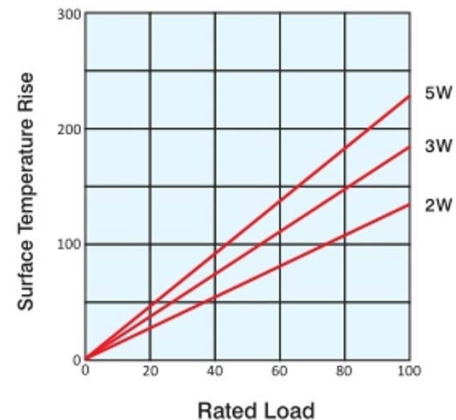
SMF

ITEM NO.
TSMF-2W-XXX-K

A B C D

A: Type
B: Watt (2/3/5)
C: Ω
D: Tolerance (K/G)

❖ Surface Temp. Raise Curve



| COMPANY | | TYPE | | | | | |
|---|---------|--|--|---|--|--|--|
|  | TACHAI | SMW 1WL  | SMW 2WL  | SMW 3WL  | SMF 1WL  | SMF 2WL  | SMF 3WL  |
|  | VISHAY | WSC 2515 | WSC 4527 | WSC 6927 | WSF 2515 | WSF 4527 | - |
|  | IRC-TT | WSM 1 | WSM 2 | WSM 3 | - | - | - |
|  | VITROHM | - | RWC 502 | - | - | RWP 502 | - |
|  | BOURNS | PWR 3014 | PWR 4318 | PWR 5322 | - | - | - |
|  | OHMITE | RW1S0CA | RW2S0CB RW2S0DA | - | RF1S0CA | RP2S0DA | RP3R0EA |



Thank you

Tachai, your optimal solution!