

**MOLDED WIREWOUND RESISTORS**

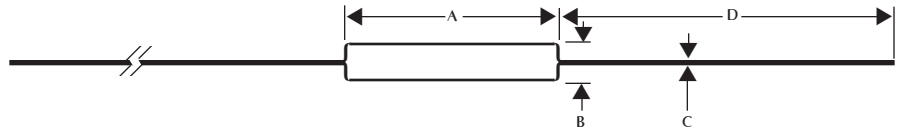
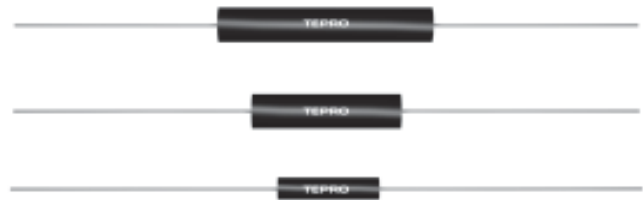
**TYPE "TSM" TRANSFER MOLDED**

**FEATURES:**

- Ultra low values
- Miniature size
- Continuous full power operation
- Higher ambients
- High-temperature molding
- Shock and moisture resistant
- High stability

**GENERAL SPECIFICATIONS:**

- Standard tolerances: 0.05 to 5%
- Dielectric strength: 1000 VAC
- Insulation resistance: 1000 megohms minimum
- Temperature coefficients:
  - 10Ω and above: ±20ppm
  - 1Ω to 9.9Ω: ±50ppm
  - Below 1Ω: ±90ppm
- Short time overload:
  - 5 sec. @ 5x rated power 3 watts and below
  - 5 sec. @ 10x rated power all others
- Terminal strength:
  - 5lb. pull test 1 watt and below
  - 10lb. pull test all others
- Standard terminals: Tinned copper weld
- Core: Ceramic steatite or alumina
- Windings: Copper-nickel or nickel-chrome alloy as required by resistance
- Sealant: High-temperature silicone
- Power ratings:
  - Based on:
    - (1) Characteristic U
    - (a) maximum hotspot 275°C
    - (b) 0.5% maximum Δ R in 2000hr. load life



**STANDARD CONFIGURATIONS AND ELECTRICAL SPECIFICATIONS:**

TEPRO TYPE	DIMENSIONS (Inches)				POWER (WATTS)	RESISTANCE RANGE (OHMS)
	A ±.031	B ±.031	C ±.002	D MIN.		
TSM.5	.406	0.93	0.025	1.5	0.5	.005 - 10K
TSM1	.420	.110	0.025	1.5	1.0	.001 - 10K
TSM2B	.560	.210	0.032	1.5	3.0	.001 - 20K
TSM3	.609	.250	0.040	1.5	3.0	.001 - 32K
TSM5	.875	.312	0.040	1.5	5.0	.001 - 60K
TSM7	1.218	.312	0.040	1.5	7.0	.001 - 160K
TSM10	1.812	.375	0.040	1.5	10.0	.001 - 225K

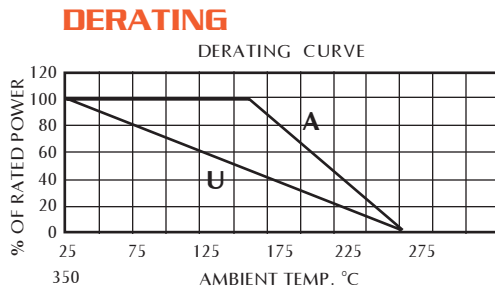
**Notes:** For non-inductive windings add "NI" to type. Maximum resistance 1/3 that shown.  
 \* Characteristic U 275°C hotspot.  
 All data and dimensions subject to change without notice.

**VARIATIONS:**

- Special TC
- Lead length and diameter
- Tolerances to ±.005%
- Noninductive (Ayrton-Perry) windings
- Lead material and finish
- Body and lead configuration

**DERATING:**

Molded units may be operated at full power in ambients to 170°C without derating. When used in higher ambients, all types require derating in accordance with the Derating Curve.



Curve A: TSM.5 and TSM1  
 U: 275°C hotspot

**HOW TO ORDER:**

Sample Part No: TSM10 - 100Ω - 0.02% - 5PPM - 1  
 Tepro Type \_\_\_\_\_  
 Resistance Value \_\_\_\_\_  
 Tolerance Range \_\_\_\_\_  
 ±1%, ±.5%, ±.25%, ±.05%,  
 ±.02%, ±.01%, ±.005%  
 Temperature Coefficient \_\_\_\_\_  
 (+ 2, 3, 5, 10, 20ppm/C)  
 Custom Modification Letter \_\_\_\_\_