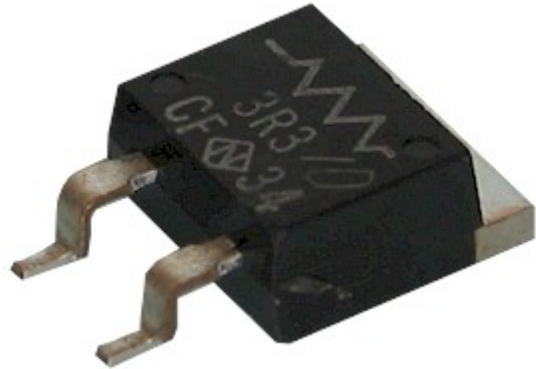
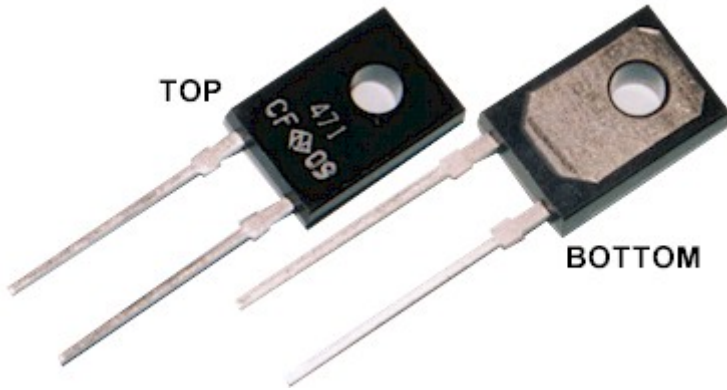


**TNP10S 20 WATT
 POWER FILM RESISTORS**

T0126

TNP10S Z00 (through hole)

**TNP10S Z10(SMD)
 also called TMP10S**



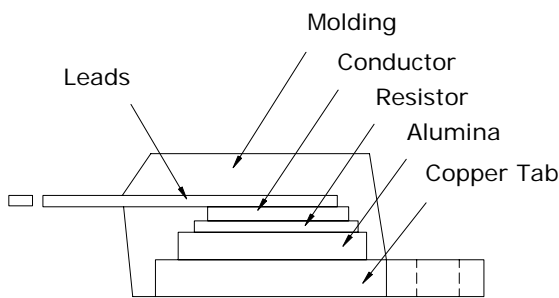
INTRODUCTION

This is a small 20 watt high power resistor in a T0126 package. The non-inductive design is ideal for high speed SW power sources, high precision CRTs and high speed pulse handling circuits. The small size eases design constraints. These models also exhibit excellent vibration durability with a heatsink mounting and excellent heat dissipation. Applications include: Colour video amplifiers for CRTs, emitter resistors for power circuits, snubber circuits, VHF amplifiers and load resistors for pulse generators.

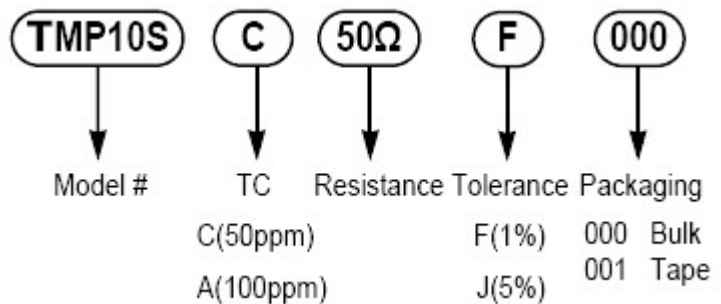
CHARACTERISTICS

Test	Limit			Condition
Rated Power	20W			Flange temp. of -55 to 25C
Rated Power	1W			Free air (no heatsink)
Heat Resistance	5.9C/W			From hot spot to flange
Resistance Range[ohms]	0.01-0.09	0.1-9.1	10-220	220 to 51Kohm available, Note 6
Nominal Resistance	E6	E24	E24	
TCR [ppm/C]	+ -250(H)	+ -100(A)	+ -50(C)	Flange Temp. of -55 to 25C
Tolerance	+ -1%, + -5%	+ -1%, + -5%	+ -1%	
Temperature range	-55 to 155C			
Withstanding Voltage	2000VAC			
Load life	+ -[1.0%+0.05ohm]			25C, 90min. ON, 30min. OFF, 1000hrs.
Humidity	+ -[1.0%+0.05ohm]			60C: 90-95%RH, DC 0.1W, 1000hours
Soldering Heat	+ -[1.0%+0.05ohm]			350+ -5C, 3 seconds
Solderability	Over 75% of surface			230+ -5C, 3 seconds
Insulation Resistance	Over 1000Mohm			Between terminals and flange
Vibration	+ -[0.25%+0.05ohm]			

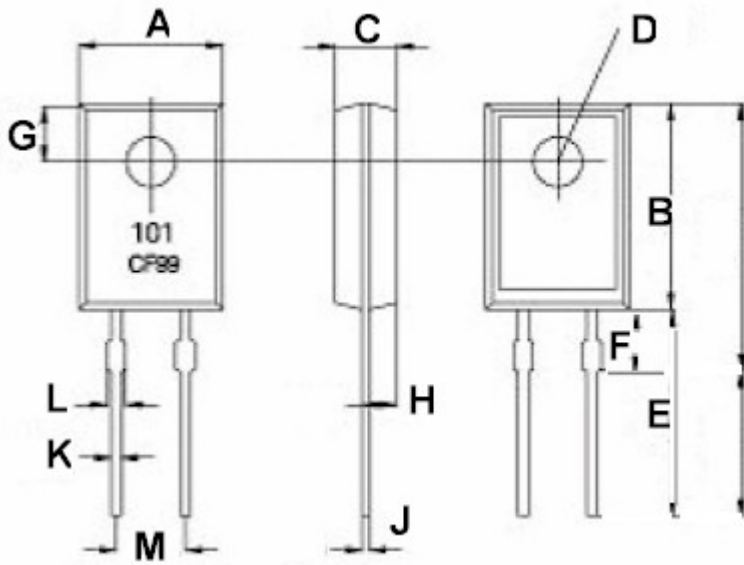
STRUCTURE AND NOTES



Between tab and resistor are insulated.



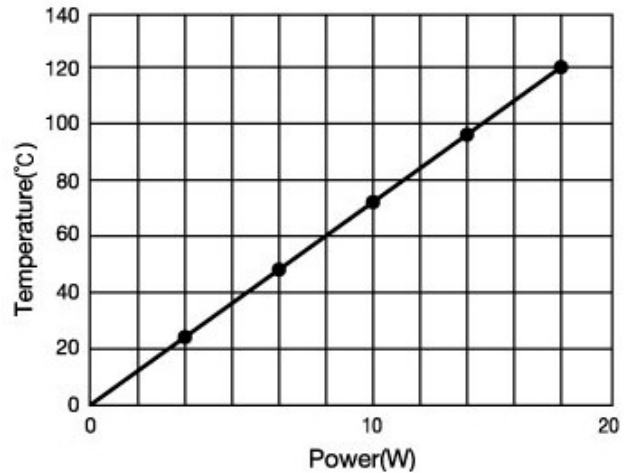
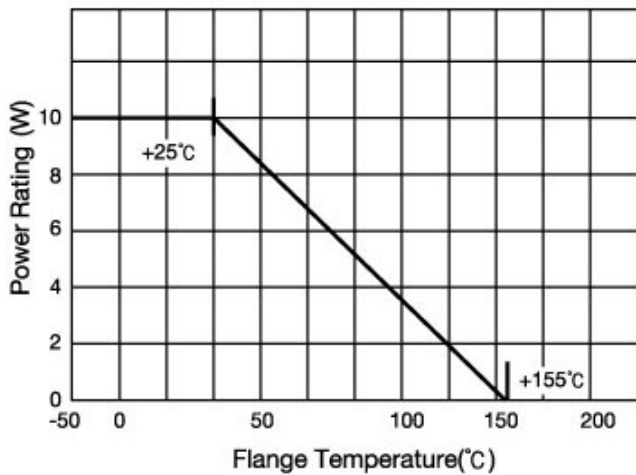
DIMENSIONS



	mm	+ -mm
A	8.5	+ -0.2
B	12.0	+ -0.2
C	3.1	+ -0.2
D	3.1	+ -0.1
E	17.0	+ -1.0
F	3.2	+ -0.5
G	3.8	+ -0.2
H	1.75	+ -0.1
J	0.5	+ -0.05
K	0.6	+ -0.05
L	1.4	+ -0.05
M	5.08	+ -0.1

TEMPERATURE RISE AND DERATING CURVE

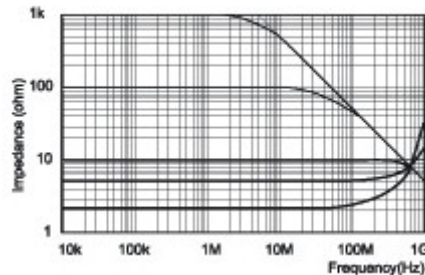
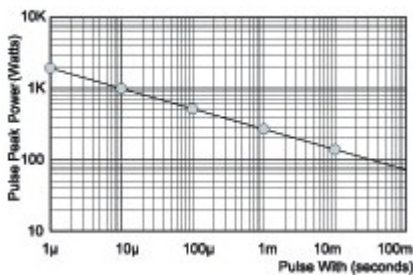
Rating Power (W), with 2.8°C/W heat sink



PULSE ENERGY DURABILITY AND FREQUENCY CHARACTERISTICS

One Time Rectangular Impulse

Frequency Characteristics



NOTES

- (1) Insulating material will not be used between flange and resistors, because flange and resistor are separated by an alumina substrate.
- (2) Using heat conduction grease on the surface of the flange is recommended.
- (3) Heat resistance between resistor and flange is 3.6K/W, attention to thermal design should be observed as the resistor temperature should be kept under 155C in operation.
- (4) 0.1% tolerance resistors are available, please enquire.
- (5) For RF application circuits, lead formed TNP10S--Z10(smd) can be prepared, TNP10S---Z10 are screw mount style.
- (6) At resistances from 220 to 51kohms power rating shall be restricted in 10W.
- (7) Standard packaging is RoHS PS/PE tube packaging, which contains 50pcs/tube. When ordering, noting tube or tray type packaging is recommended.