

**Current Sensing Resistors**

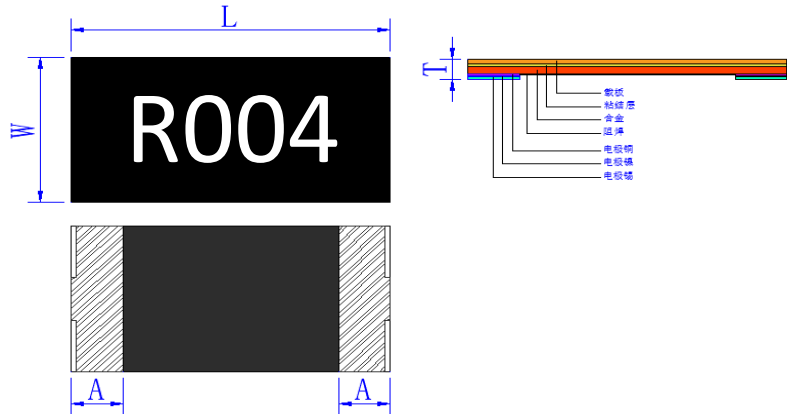
# Specification Sheet

Terminal Pad Solderability:  
 Meets EIA Specification RS186-9E  
 And ANSI/J-STD-002 Category 3.

Terminal Pad Materials:  
 Tin-plated Nickel-Copper

Lead-Free, RoHS Compliant

Marking:  
 Part Identification  
 R\*\*\* = Resistance specification



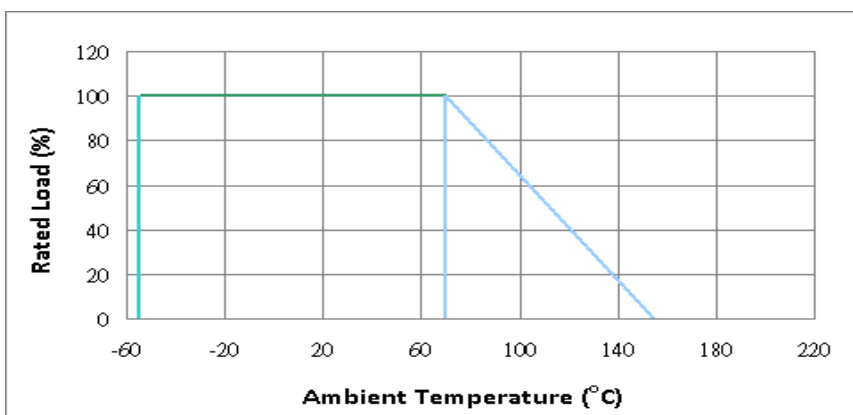
**TABLE I . Construction And Dimension (Unit:mm)**

Model	Marking	L		W		T		A	
TCS2512004S2W0	R004	6.40	±0.2	3.20	±0.2	0.40	±0.2	1.00	±0.2

**TABLE II . Performance Specification:**

Model	Marking	Prat 70°C	Ro	Rt	Vmax
		(Watt)	(mΩ)	(±%)	(V)
TCS2512004S2W0	R004	2.00	4.00	1, 2, 3, 5	(P*R) 1/2
		TCR	Ri	Ta	
		(ppm)	(MΩ)	(°C)	
		±70	>100	70.00	

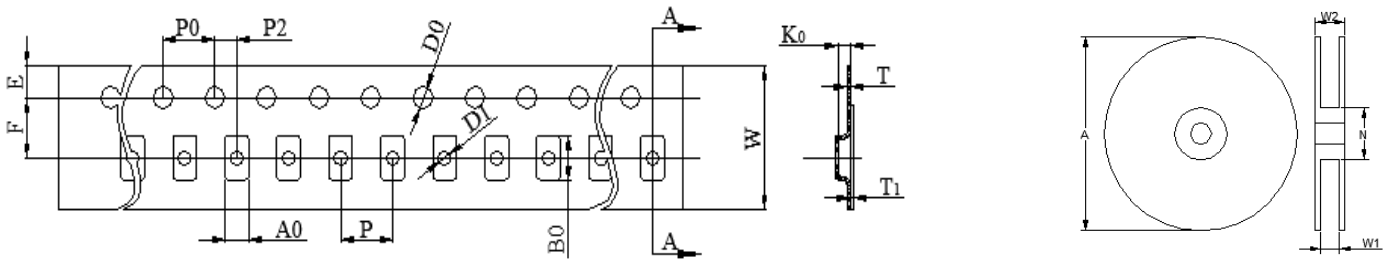
**TABLE III. Temperature and heat derating curve.**



Rated power refers to the term that can be used continuously at full power within 70 C.

The following figure shows the usable power attenuation curve when the operating temperature is higher than 70 C.

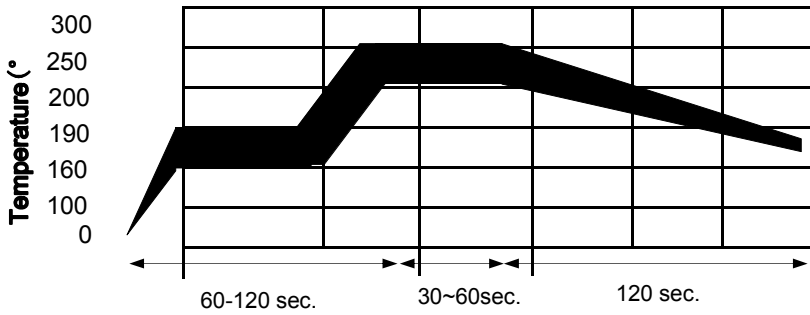
TABLE IV. Tape And Reel Specifications (mm)



型号	W	D0	P0	F	P	E	P2	T	A0	B0	T1	K0
	±0.30	±0.10	±0.10	±0.10	±0.10	±0.10	±0.10	±0.10	±0.15	±0.15	max	±0.15
TCS2512004S2W0	12	1.5	4	5.5	4	1.75	2	0.2	3.4	6.7	0.1	0.6

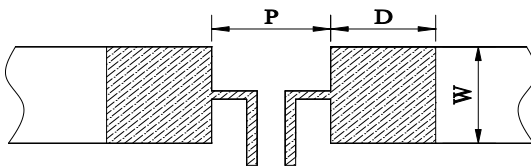
型号	A	N	W1	W2
TCS2512004S2W0	178± 5	60± 2	12.3+1/-0	Max. 18.4

TABLE V. Recommended Solder Reflow Conditions



- Recommended reflow methods : IR, vapor phase oven, hot air oven.
  - Devices are not designed to be wave soldered to the bottom side of the board.
  - Recommended maximum paste thickness is 0.15 mm (0.006 inch).
  - Devices can be cleaned using standard method and solvents.
- Note : If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.
- In case of special use, please contact our engineer

TABLE VI. Recommended Pad Layout (mm)



Part Number	P	W	D	t	Load
	mm	mm	mm	μm	W
TCS2512004S2W0	3.10	3.57	3.10	105.00	2.00

**Order Information**

**Packaging**

TCS2512	004	Tape & Reel Quantity
Product name	R	5000 pcs/reel
Size 6432 mm / 2512 mils	4mΩ	
SMD: surface mount device		

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