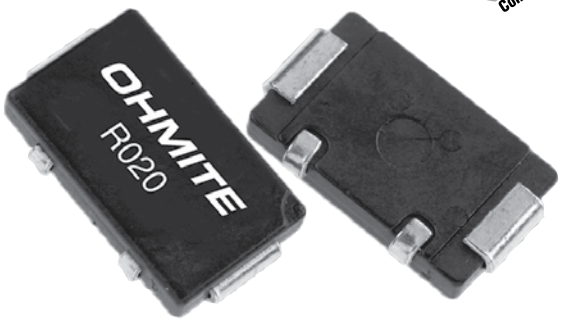
RW1/RW2 Series

Surface Mount Four Terminal Current Sense

RoHS Compliant



FEATURES

- Extremely low resistance and high precision tolerance
- Low T.C.R. achieved (±50ppm/°C)
- Flameproof UL94-V-0
- Marking: Black body color with white marking

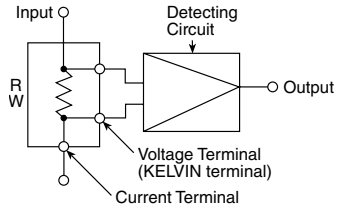
SERIES SPECIFICATIONS

Type	Power Rating (watts)	Resistance Range E-12 (mΩ)	Resistance Tolerance	Dielectric Withstanding Voltage	TCR (max. ppm/°C)	Qty./Reel
RW1S0CK	1	5mΩ - 50mΩ	1%	500V	±50	1000
RW2S0DK	2	5mΩ - 50mΩ	1%	500V	±50	1000

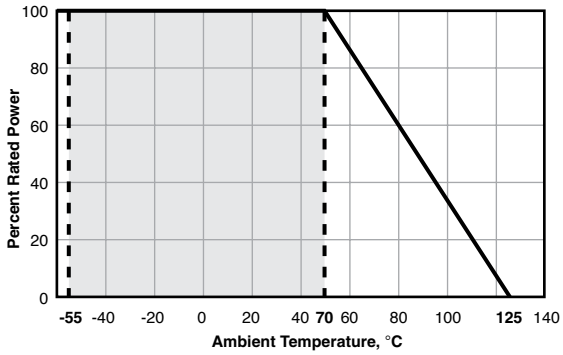
CHARACTERISTICS

TCR max.	±50 ppm/°C
Rated Ambient Temp.	+70°C
Operating Temp. Range	-55°C - +125°C

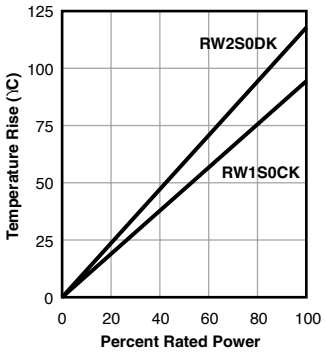
Typical Schematic



Derating



Surface Temperature Rise



PERFORMANCE DATA

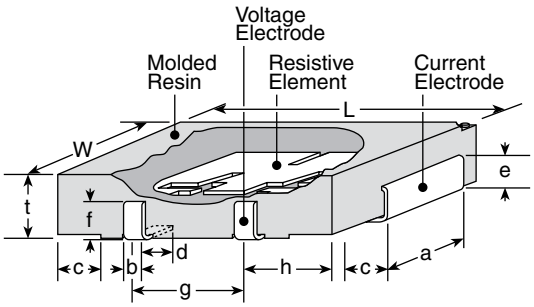
Parameter	Requirement ΔR Limit	Typical	Test Method
Resistance	Within regulated tolerance	—	25°C
T.C.R.	Within specified T.C.R.	—	+25°C/-55°C and +25°C/+125°C
Overload	±1.0%	±1.0%	Rated power x 5 for 5 seconds
Resistance to Solder Heat	±1.0%	±1.0%	260°C ± 5°C, 10 seconds ±1 second
Rapid Change of Temperature	±1.0%	±0.5%	-55°C (30 minutes), +125°C (30 minutes), 500 cycles
Moisture Resistance	±2.0%	±0.5%	40°C ± 2°C, 90 - 95% RH, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle
Endurance at 70°C	±1.0%	±0.5%	70°C ± 2°C, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle
Low Temperature Operation	±0.5%	±0.25%	-55°C, 1 hour
High Temperature Exposure	±0.5%	±0.25%	+125°C, 100 hours

RW1/RW2 Series

Surface Mount Four Terminal Current Sense

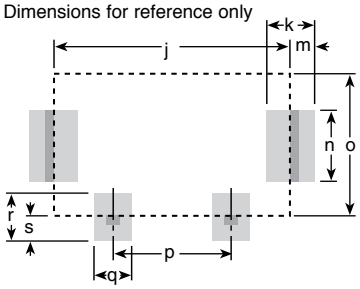
DIMENSIONS

(in./mm)



Land Pattern

Dimensions for reference only



	RW1S0CK	RW2S0DK
L	0.425±.02 (10.8±0.5)	0.504±.02 (12.8±0.5)
W	0.244±.012 (6.2±0.3)	0.323±.012 (8.2±0.3)
t	0.083±.008 (2.1±0.2)	0.122±.008 (3.1±0.2)
a	0.118±.012 (3.0±0.3)	0.197±.012 (5.0±0.3)
b	0.031±.008 (0.8±0.2)	0.039±.008) (1.0±0.2)
c	0.055±.02 (1.4±0.5)	0.079±.02 (2.0±0.5)
d	0.047±.02 (1.2±0.5)	0.079±.02 (2.0±0.5)
e	0.051±.012 (1.3±0.3)	0.087±.012 (2.2±0.3)
f	0.051±.012 (1.3±0.3)	0.087±.012 (2.2±0.3)
g	0.197±.004 (5.0±0.1)	0.236±.004 (6.0±0.1)
h	0.098±.004 (2.5±0.1)	0.118±.004 (3.0±0.1)
j	0.39 (10.0)	0.47 (12.0)
k	0.08 (2.0)	0.09 (2.3)
m	0.04 (1.0)	0.05 (1.15)
n	0.12 (3.0)	0.21 (5.3)
o	0.24 (6.0)	0.31 (8.0)
p	0.20 (5.0)	0.24 (6.0)
q	0.06 (1.6)	0.09 (2.2)
r	0.08 (2.0)	0.13 (3.2)
s	0.04 (1.0)	0.06 (1.6)

ORDERING INFORMATION

RoHS Compliant

R W 1 S 0 C K R 0 0 5 F E T

Type & Power Rating
RW1S0CK = 1 watt
RW2S0DK = 2 watt

Ohms
R005 = 0.005Ω
R050 = 0.05Ω

Tolerance
F = 1%
D = 0.5%

Packaging
T = tape and reel (optional)

The part itself will be marked as follows:

Current Sense Resistor — **Power Rating** (watts)

CSR1
10m ohms D

Tolerance
F = 1%
D = 0.5%

Ohms
10m ohms = 0.01Ω

Standard Part Numbers for RW Series

Wattage:		1 watt		2 watt
Tolerance:		1%	0.5%	1%
Ohms	Series:	RW1S0CK----FET	RW1S0CK----DET	RW2S0DK----FET
0.00500		RW1S0CKR005FET	RW1S0CKR005DET	RW2S0DKR005FET
0.01000		RW1S0CKR010FET	RW1S0CKR010DET	RW2S0DKR010FET
0.02500		RW1S0CKR025FET	RW1S0CKR025DET	RW2S0DKR025FET
0.05000		RW1S0CKR050FET	RW1S0CKR050DET	RW2S0DKR050FET