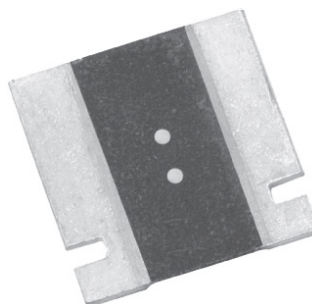


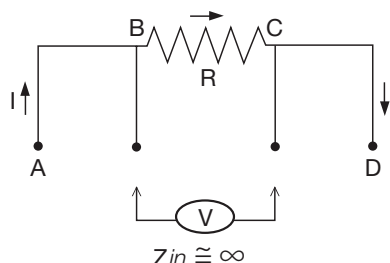
**Bulk Metal® Foil Technology High Precision, Current Sensing,
Power Surface Mount, Metal Strip Resistor**
with Improved Stability 0.05 %, Resistance Value from 10 mΩ,
Rated Power to 2 W and TCR to 0 ± 20 ppm/°C

FEATURES

- Temperature coefficient of resistance (TCR):
(-55°C to +125°C, +25°C ref.)
 ± 20 ppm/°C maximum
- Load life stability to $\pm 0.05\%$ (70°C, 2000 h at rated power)
- Power rating: 2 W
- Resistance tolerance: $\pm 0.2\%$
- Resistance range: 10 mΩ to 100 mΩ
- VFR resistors are not restricted to standard values;
- specific “as required” values can be supplied
(e.g. 10.2345 mΩ vs. 10 mΩ)
- Short time overload: 0.1%



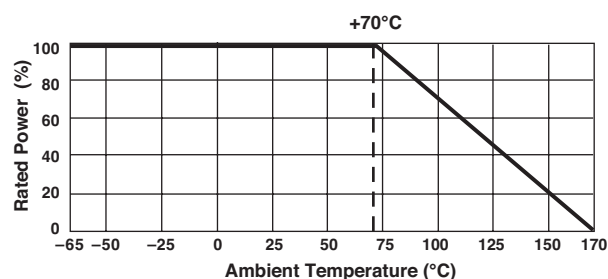
RoHS*
COMPLIANT



Performance Specifications

PARAMETER	CSM3637S
Resistance Range	10 mΩ to 100 mΩ
Power Rating at 70°C	2 W
Maximum Current	14 A
Tightest Tolerance	$\pm 0.2\%$
Temperature Coefficient Maximum (-55°C to +125°C, +25°C ref.)	± 20 ppm/°C
Operating Temperature Range	-65°C to +170°C
Weight (maximum)	0.29 g

Power Derating Curve

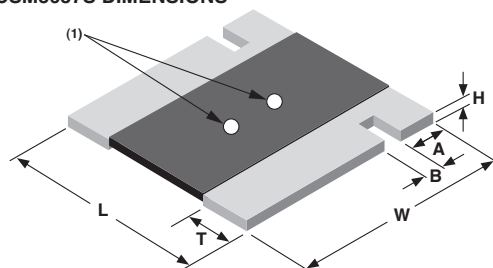
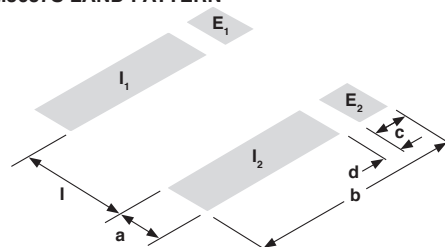


CSM3637S Performance Specifications

TEST	CONDITIONS	MIL-PRF-49465B ΔR LIMITS	TYPICAL ΔR LIMITS	MAXIMUM ΔR LIMITS
Thermal Shock	-55°C to +125°C, 1000 cycles, 15 min at each extreme	$\pm(0.5\%+0.0005R)$	0.1%	0.2%
Load Life Stability	2000 h, 70°C at rated power	$\pm(1.0\%+0.0005R)$	0.05%	0.2%
Bias Humidity	85°C, 85% humidity, 10% bias, 1000 h	$\pm(0.5\%+0.0005R)$	0.05%	0.2%
Short Time Overload	5 x rated power for 5 s	$\pm(0.5\%+0.0005R)$	0.1%	0.2%
High Temperature Exposure	1000 h, 170°C	$\pm(1.0\%+0.0005R)$	0.2%	0.3%
Low Temperature Storage	MIL-PRF-49465	$\pm(0.5\%+0.0005R)$	0.05%	0.1%
Moisture Resistance	MIL-STD-202, method 106, 0% power, 7a and 7b not required	$\pm(0.5\%+0.0005R)$	0.02%	0.05%
Shock	100 g, 6 ms	$\pm(0.1\%+0.0005R)$	0.02%	0.05%
Vibration	(10 Hz to 2000 Hz) 20 g	$\pm(0.1\%+0.0005R)$	0.02%	0.05%
Resistance to Soldering Heat	10 s to 12 s at +260°C	$\pm(0.25\%+0.0005R)$	0.05%	0.1%
Solderability	MIL-STD-202	95% coverage	–	–

Note

Measurement error 0.0005R per MIL-PRF-49465

Dimensions and Imprinting in Inches (Millimeters)**CSM3637S DIMENSIONS****CSM3637S LAND PATTERN****Dimensions – Tolerances ± 0.010 (± 0.254)**

RESISTANCE RANGE (m Ω)	L	W	H	T	A	B
10 to 100	0.360 (9.144)	0.370 (9.398)	0.025 (0.635)	0.086 (2.184)	0.061 (1.549)	0.032 (0.813)

Land Pattern Dimensions – Tolerances ± 0.003 (± 0.076)

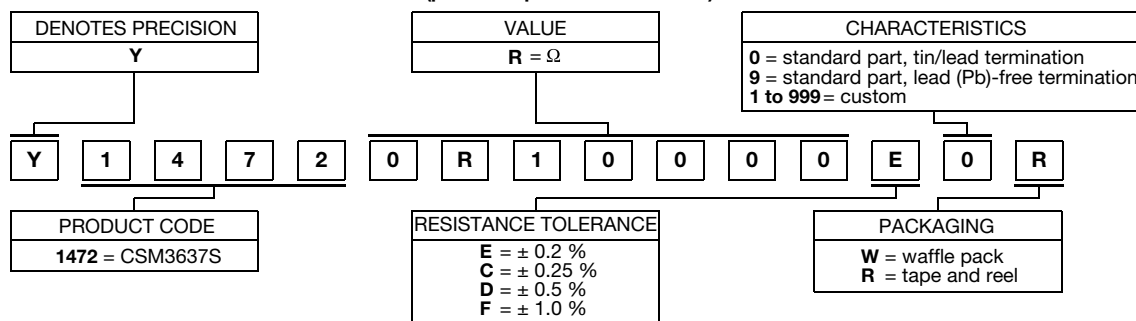
RESISTANCE RANGE (m Ω)	i	b	–	a	c	d
10 to 100	0.178 (4.52)	0.390 (9.91)	–	0.116 (2.95)	0.066 (1.68)	0.024 (0.610)

Note

(1) White dots indicate top side of part for mounting purposes

Global Part Number Information⁽¹⁾

NEW GLOBAL PART NUMBER: Y14720R10000E0R (preferred part number format)



FOR EXAMPLE: ABOVE GLOBAL ORDER Y1472 0R10000 E 0 R:

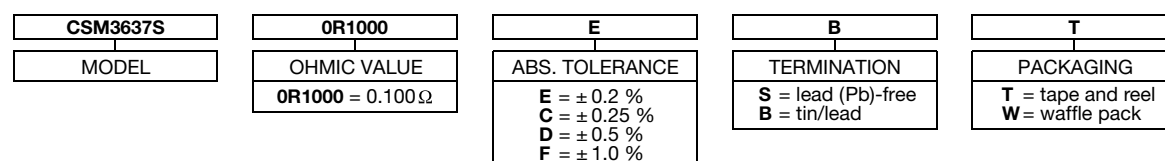
TYPE: CSM3637S

VALUE: 100.0 m Ω ABSOLUTE TOLERANCE: $\pm 0.2\%$

TERMINATION: standard tin/lead

PACKAGING: tape and reel

HISTORICAL PART NUMBER: CSM3637S 0R1000 E B T (will continue to be used)



Note

⁽¹⁾ For non-standard requests, please contact application engineering.