

Vishay Dale Thin Film

Sandwich, 25 mil Pitch, Dual In-Line Thin Film Resistor, Surface Mount Network



A dual-in-line monolithic ceramic sandwich in a variety of pin sizes (14 to 24) that allow higher resistance integration than traditional chip and wire molded construction. In addition, tighter resistance tolerances can be obtained over traditional molded networks due to the elimination of molding temperature and stress.

FEATURES

- · Lead (Pb)-free gold plated terminals standard
- Gold-to-gold terminations. External leads are attached directly to gold pads on the ceramic substrate by thermo-compression bonding (no internal solder)



- Tighter tolerances than molded standards (0.01 %)
- · Ceramic package with no cavity
- Flexibility of lead variations to save PC board space
- Material categorization: For definitions of compliance please see www.vishay.com/doc?99912

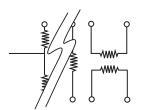
Note

* Lead (Pb)-containing terminations are not RoHS-compliant. Exemptions may apply.

TYPICAL PERFORMANCE

	ABSOLUTE	TRACKING
TCR	25	5
	ABSOLUTE	RATIO
TOL.	0.1	0.02

SCHEMATIC



Custom schematics available Please consult factory

TEST	SPECIFICATIONS	CONDITIONS
Material	Tantalum nitride or passivated nichrome (1)	=
Pin/Lead Number	14 to 24	=
Resistance Range	100 Ω to 500 kΩ total	-
TCR: Absolute	± 25 ppm/°C to ± 50 ppm/°C	- 55 °C to + 125 °C
TCR: Tracking	± 5 ppm/°C (typical)	- 55 °C to + 125 °C
Tolerance: Absolute	± 0.05 % to ± 1.0 %	+ 25 °C
Tolerance: Ratio	± 0.02 % to ± 0.1 %	+ 25 °C
Power Rating: Resistor	100 mW	Per element at + 70 °C
Power Rating: Package	500 mW	Maximum at + 70 °C
Stability: Absolute	ΔR ± 0.1 %	2000 h at + 70 °C
Stability: Ratio	ΔR ± 0.03 %	2000 h at + 70 °C
Voltage Coefficient	0.1 ppm/V	-
Working Voltage	100 V max. not to exceed √P x R	-
Operating Temperature Range	- 55 °C to + 125 °C	-
Storage Temperature Range	- 55 °C to + 150 °C	-
Noise	< - 30 dB	-
Thermal EMF	0.08 μV/°C	-
Shelf Life Stability: Absolute	ΔR ± 0.01 %	1 year at + 25 °C
Shelf Life Stability: Ratio	$\Delta R \pm 0.002 \%$	1 year at + 25 °C

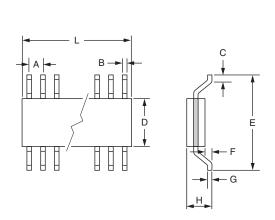
Note

⁽¹⁾ Passivated nichrome is not standard film type for CSOM series, consult factory if required



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DIMENSIONS AND IMPRINTING in inches and millimeters



DIMENSION	INCHES	MILLIMETERS
Α	0.025	0.64
В (Тур.)	0.010	0.25
С	0.017 - 0.005 + 0.0010	0.432
D (Max.)	0.157	3.99
Е	0.239	6.07
F (Min.)	0.005	0.13
G (Typ.)	0.006	0.15
H (Max.)	0.070	1.72
L (14 Pins)	0.193 ± 0.01	4.90
L (16 Pins)	0.193 ± 0.01	4.90
L (18 Pins)	0.341 ± 0.01	8.66
L (20 Pins)	0.341 ± 0.01	8.66
L (22 Pins)	0.341 ± 0.01	8.66
L (24 Pins)	0.341 ± 0.01	8.66

MECHANICAL SPECIFICATIONS		
Resistive Element	Tantalum nitride or passivated nichrome	
Body	Ceramic	
Lead Coplanarity	± 0.004	
Substrate Material	Alumina	
Marking Resistance to Solvents	Per MIL-PRF-83401	
Terminals	Copper alloy	
Plating	Nickel/gold	
Model CSOMG - Lead (Pb)-free Standard	Gold plated	
Model CSOM - Tin/Lead Solder Coated Option	Sn63	
Model CSOMT - Lead (Pb)-free Solder Coated Option	96.5 % Sn, 3.0 % Ag, 0.5 % Cu	

ORDERING INFORMATION CHECK LIST				
Special requirements should be identified in advance, but as a minimum, you should have the following information ready.				
ELECTRICAL	MECHANICAL			
1. Resistors, by value and tolerance 2. Reference resistor(s) and matching of which resistors to which reference resistors 3. Reference by ratio 4. Absolute temperature coefficient of resistivity 5. Temperature tracking of subordinate resistors to reference resistor(s) 6. Maximum operating voltage 7. Resistor power ratings 8. Operating temperature range	Maximum allowable seated height (from PC board to top of network) Special marking concerns Schematic pin out of package Specify if solder coated leads are required			





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GLOBAL PART NUMBER INFORMATION				
New Global Part Numbering: CSOMG1	xx-xxxT1			
C S O M G	1 x x - x	x x T 1		
C S O M	1 x x - x	x x T 1		
C S O M T	1 x x - x x	x - x T 1		
<u> </u>				
GLOBAL MODEL	CUSTOM PART NUMBER	PACKAGING		
(4 or 5 digits)	(7 or 9 digits)	17tore tailva		
CSOMG	1xx-xxx	TAPE AND REEL		
(Lead (Pb)-free)	1xx-xxx-x	T0 = 100 min., 100 mult		
(e4)		T1 = 1000 min., 1000 mult		
		T3 = 300 min., 300 mult		
CSOM		T5 = 500 min., 500 mult		
(Tin lead)		TF = Full reel		
20047		TS = 100 min., 1 mult		
CSOMT		IIE - TURED		
(Lead (Pb)-free)		UF = TUBED		
(e1)				



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