

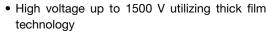
Molded Thick Film Divider, High Voltage, High Precision, Surface-Mount



LINKS TO ADDITIONAL RESOURCES



FEATURES





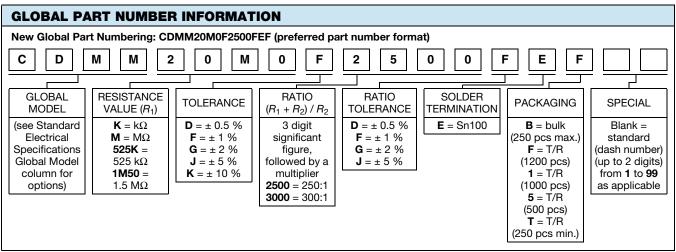
 Precision to ± 0.5 % with low TCR tracking to 10 ppm/°C utilizing thick film technology ROHS COMPLIANT HALOGEN FREE

- Sulfur resistant
- Automotive compliant terminations
- AEC-Q200 qualified
- · Wide range of resistance value and ratios
- 12.5 mm creepage distance. Rated 1250 V per IEC 60664-1
- PATENT(S): www.vishay.com/patents
- Material categorization: for definitions of compliance please see www.vishav.com/doc?99912

STANDARD ELECTRICAL SPECIFICATIONS								
GLOBAL MODEL	CASE SIZE	POWER RATING P _{70 °C} W	MAXIMUM WORKING VOLTAGE ⁽¹⁾ V	RESISTANCE RANGE $R_1^{(2)}$ Ω	TOLERANCE (3) R ₁ ± %	RATIO RANGE ⁽⁴⁾ (R ₁ + R ₂) / R ₂	RATIO TOL. ± %	TCR TRACKING (-55 °C to +155 °C) ± ppm/°C
CDMM	4527	1.5	1500	500K to 50M	0.5, 1, 2, 5, 10	100:1 to 500:1	0.5, 1, 2, 5	10 - 50

Notes

- (1) Continuous working voltage shall be $\sqrt{P \times R}$ or maximum working voltage, whichever is less
- (2) Resistance value is calibrated at 100 V_{DC}
- (3) Contact factory for tighter tolerances
- (4) Contact factory for other ratios



Notes

Contact factory for other ratios

Revision: 08-Oct-2021

• For additional information on packaging, refer to the Surface Mount Resistor Packaging document (<u>www.vishay.com/doc?31543</u>)

PATENT(S): www.vishay.com/patents

This Vishay product is protected by one or more United States and international patents.

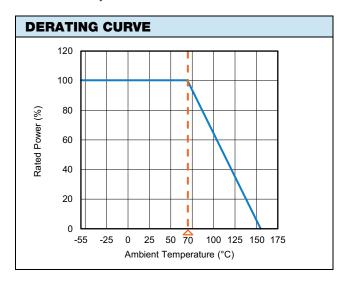
-55 °C to +155 °C



VOLTAGE AND TEMPERATURE COEFFICIENTS OF RESISTANCE CHART (TYPICAL)					
GLOBAL MODEL	RESISTANCE Ω	RATIO (TYPICAL)	VCR ppm/V	RATIO TRACKING (-55 °C to +150 °C) ppm/°C	
	500K	100:1	-10	± 20	
CDMM	15M	250:1	-10	± 10	
	50M	500:1	-10	-50 to 0	

Note

Contact factory for other ratios

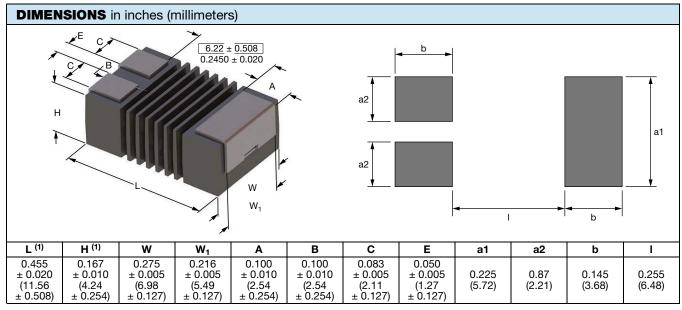


TYPICAL DC ELECTRICAL CIRCUIT				
	R1		•	
1 o—/	\bigvee	o 3 +	2 3	
V _{IN}	R2	\mathbf{v}_{out}		
2			***************************************	

ENVIRONMENTAL SPECIFICATIONS

Operating temperature

MECHANICAL SPECIFICATIONS				
Resistive element	Ruthenium oxide (thick film)			
Encapsulation	Molded thermoplastic			
Substrate	Alumina			
Termination	Solder-coated bronze			



Note

(1) Dimensions includes the terminals

ARE SUBJECT TO SPECIFIC DISCLAIMERS, SET FORTH AT www.vishay.com/doc?91000



Vishay Techno

PERFORMANCE				
TEST	CONDITIONS OF TEST	TEST LIMITS		
Thermal shock	-55 °C to +150 °C, 1000 cycles, 15 min at each extreme	± 1.0 % ΔR		
High temperature exposure	1000 h at 155 °C	± 1.0 % ΔR		
Biased humidity	+85 °C, 85 % RH, 10 % rated power ⁽¹⁾ , 1000 h	± 2.0 % ΔR		
Mechanical shock	100 g's for 11 ms, 5 pulses	± 0.5 % ΔR		
Vibration	Frequency varied 10 Hz to 500 Hz in 1 min, 3 directions, 9 h	± 0.5 % ΔR		
Load life	1000 h at rated power, +70 °C, 1.5 h "ON", 0.5h "OFF"	± 1.0 % ΔR		
Resistance to solder heat	+260 °C solder, 10 s to 12 s dwell, 25 mm/s emergence	± 1.0 % ΔR		

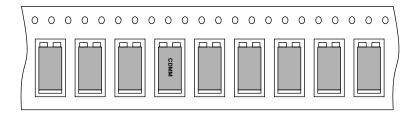
Note

⁽¹⁾ Applied voltage is based on the critical resistance value, not to exceed 500 V

PACKAGING					
MODEL	TAPE WIDTH	DIAMETER	PIECES/REEL	CODE	
	24 mm / embossed plastic	330 mm / 13"	1200	EF	
CDMM			1000	E1	
CDMIM			500	E5	
			250	ET	

Note

• Embossed carrier tape per EIA-481



The above image shows the orientation of the parts in the reel



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