

CZB

Vishay Dale

Thick Film Chip Attenuator, Surface Mount, Balanced π Type



FEATURES

- Single component reduces board space and component counts replaces 3 or more components
- Tolerance matching and temperature tracking superior to individual components
- Maximum power dissipation: 0.075 W for CZB06S
- Consult factory for extended values, non-standard tolerances, impedance matching and other attenuation values
- Frequency range: DC to 3 GHz
- Surface mount chip attenuator in a resistor array package
- Material categorization: for definitions of compliance please see <u>www.vishay.com/doc?99912</u>

Note

This datasheet provides information about parts that are RoHS-compliant and / or parts that are non RoHS-compliant. For example, parts with lead (Pb) terminations are not RoHS-compliant. Please see the information / tables in this datasheet for details

STANDARD ELECTRICAL SPECIFICATIONS					
POWER RATING P70 °C		ATTENUATION RANGE AND TOLERANCE			
W		± 0.3 dB (L)	± 0.5 dB (H)		
0.075	50/75	0 dB, 1 dB to 5 dB	6 dB to 10 dB		
	RICAL SPECIFICAT POWER RATING P70 °C W 0.075	POWER RATING P70 °C W IMPEDANCE Ω 0.075 50/75	Impedance ATTENUATION RANG POWER RATING P _{70 °C} IMPEDANCE ATTENUATION RANG Ω 100 ± 0.3 dB (L) ± 0.3 dB (L) 0.075 50/75 0 dB, 1 dB to 5 dB		

Note

· Power rating depends on the maximum temperature at the solder point, the component placement density and the substrate material

IMPEDANCE	50 Ω	75 Ω
	1	1
	1.5	1.5
	2	2
Attenuetion in dP (1)	3	3
Attenuation in dB (1)	4	4
	5	5
	6	6
	10	10



Note

⁽¹⁾ Consult factory for other attenuations

TECHNICAL SPECIFICATIONS					
PARAMETER	UNIT	CZB06S			
Rated dissipation at 70 °C	W	0.075			
VSWR		1.2 max.			
Category temperature range	°C	-55 to +150			
Frequency range		DC to 3 GHz			

GLOBAL PART NUMBER INFORMATION

C Z B 0 6 S 0 4 0 2 0 0 5 0 L R T						
MODEL CZB06S	PIN COUNT 04 = 4 pin	ATTENUATION 010 = 1.0 dB 015 = 1.5 dB 020 = 2.0 dB 100 = 10.0 dB 000 = 0 dB	IMPEDANCE 050 = 50 Ω 075 = 75 Ω	TOLERANCE $H = \pm 0.5 \text{ dB}$ $L = \pm 0.3 \text{ dB}$	PACKAGING EA = lead (Pb)-free, T/R RT = tin lead, T/R	SPECIAL (Dash number) Up to 1 digit Blank = standard

Note

For additional information on packaging, refer to the Surface Mount Network Packaging document (<u>www.vishay.com/doc?31540</u>)

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For technical questions, contact: <u>ff2aresistors@vishay.com</u> THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE. THE PRODUCTS DESCRIBED HEREIN AND THIS DOCUMENT ARE SUBJECT TO SPECIFIC DISCLAIMERS, SET FORTH AT <u>www.vishay.com/doc?91000</u>

End of Life June-2021



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DIMENSIONS

4-Terminal device

S - Version

CZB06S





GLOBAL MODEL		DIMENSIONS in inches (millimeters)						
	L	w	т	Α	Р	В		B*
CZB06S	$\begin{array}{c} 0.063 \pm 0.006 \\ (1.60 \pm 0.15) \end{array}$	$\begin{array}{c} 0.059 \pm 0.006 \\ (1.50 \pm 0.15) \end{array}$	0.020 ± 0.004 (0.51 ± 0.10)	$\begin{array}{c} 0.024 \pm 0.006 \\ (0.61 \pm 0.15) \end{array}$	0.031 (0.80)	0.012 ± 0 (0.30 ± 0	0.006 0.15)	0.012 ± 0.006 (0.30 ± 0.15)
GLOBAL MODEL		SOLDER PAD DIMENSIONS in inches (millimeters)						
	С	с		d	a	а		b
CZB06S	0.031 (0.80) 0.		0.031 (0.80) 0.122 (3.10) 0.014 (0.36) 0.025 (0.63)		0.63)	0).045 (1.15)	



PERFORMANCE						
TEST		TEST RESULTS (TEST RESULTS (TYPICAL TEST LOTS)			
1251	CONDITIONS OF TEST	0.5 dB to 5 dB	6 dB to 10 dB			
Endurance test at 70 °C per EIA 575-3.14	1000 h at 70 °C, 1.5 h "ON", 0.5 h "OFF"	± 0.2 dB	± 0.3 dB			
Overload per EIA 575-3.6	Short time overload	± 0.2 dB	± 0.3 dB			
Thermal shock	Per EIA 575-3.5	± 0.2 dB	± 0.3 dB			
Moisture resistance	Per EIA 575-3.10	± 0.2 dB	± 0.3 dB			
Resistance to soldering heat	10 s at 260 °C solder bath temperature EIA 575 3.8	± 0.2 dB	± 0.3 dB			
High temperature exposure	Per EIA 575-3.7	± 0.2 dB	± 0.3 dB			
Low temperature operations	Per EIA-575-3.6	± 0.2 dB	± 0.3 dB			
Solderability and leaching	EIA 575-3.12	95 % coverage				

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