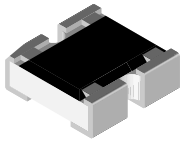
CZA

Vishay Dale

Surface Mount Chip Resistor Attenuator



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 Watts for CZA06S; 0.040 Watts for CZA04S
- Consult factory for extended values, non-standard tolerances, impedance matching and other attenuation values
- Frequency range: DC to 3GHz
- Lead (Pb)-Free Version is RoHS Compliant

Pb Available

e3

RoHS* COMPLIANT

STANDARD ELECTRICAL SPECIFICATIONS

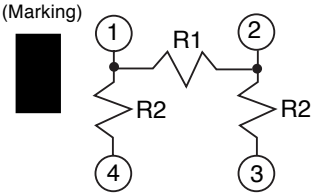
GLOBAL MODEL	POWER RATING $P_{70°C}$ W	IMPEDANCE Ω	ATTENUATION RANGE AND TOLERANCE	
			± 0.3 dB (L)	± 0.5 dB (H)
CZA04S	0.040	50	1 - 5 dB	6 - 20 dB
CZA06S	0.075	50 / 75 / 100 / 300 / 600	1 - 5 dB	6 - 20 dB

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

IMPEDANCE	50Ω	75Ω	100Ω	300Ω	600Ω
Attenuation in dB	1	1	1	1	1
	1.5	1.5	1.5	1.5	1.5
	2	2	2	2	2
	3	3	3	3	3
	4	4	4	4	4
	5	5	5	5	5
	6	6	6	6	6
	10	10	10	10	10
	11	11	11	11	11
	12	12	12	12	12
	13	13	13	13	13
	14	14	14	14	14
	15	15	15	15	15
	16	16	16	16	16
	17	17	17	17	17
	18	18	18	18	18
	19	19	19	19	19
	20	20	20	20	20

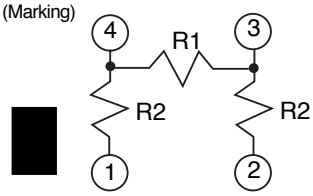
4-PIN CIRCUIT

CZA04S:
(Marking)



Unbalanced π Type

CZA06S:
(Marking)



Unbalanced π Type

TECHNICAL SPECIFICATIONS

PARAMETER	UNIT	CZA04S	CZA06S
Rated Dissipation at 70°C	W	0.040	0.075
VSWR		1.2 max.	1.2 max.
Category Temperature Range	°C	- 55 / + 125	- 55 / + 150
Frequency Range		DC to 3GHz	DC to 3GHz

GLOBAL PART NUMBER INFORMATION

New Global Part Numbering: CZA06S04015050LRT (preferred part numbering format)

C	Z	A	0	6	S	0	4	0	1	5	0	5	0	L	R	T	

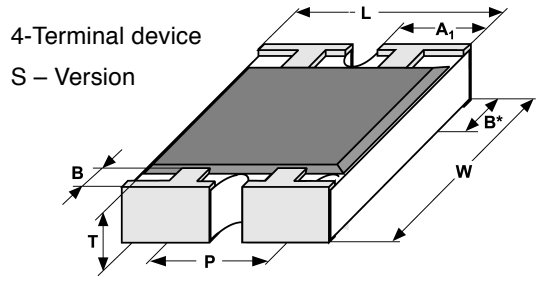
MODEL	PIN COUNT	ATTENUATION	IMPEDANCE	TOLERANCE	PACKAGING	SPECIAL
CZA04S **CZA06S**	**04** = 4 Pin	**010** = 1.0dB **015** = 1.5dB **020** = 2.0dB **150** = 15.0dB **000** = 0Ω Jumper	**050** = 50Ω **075** = 75Ω **100** = 100Ω **000** = 0Ω Jumper	**H** = ±0.5dB **L** = ±0.3dB **Z** = 0Ω Jumper	**EA** = Lead Free, T/R (All) **TD** = Tin/Lead, T/R (04 only) **RT** = Tin/Lead, T/R (06 only)	(Dash Number) (up to 1 digit) Blank = Standard

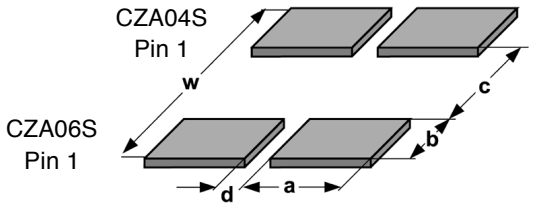
Historical Part Number example: CZA06S04015050LRT (will continue to be accepted)

CZA	06S	04	015	050	L	RT
MODEL	CASE SIZE	PIN COUNT	ATTENUATION	IMPEDANCE	TOLERANCE	PACKAGING

*Pb containing terminations are not RoHS compliant, exemptions may apply.

DIMENSIONS

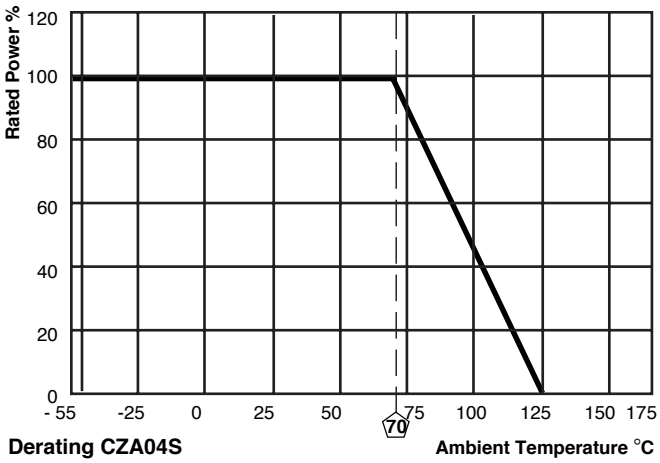




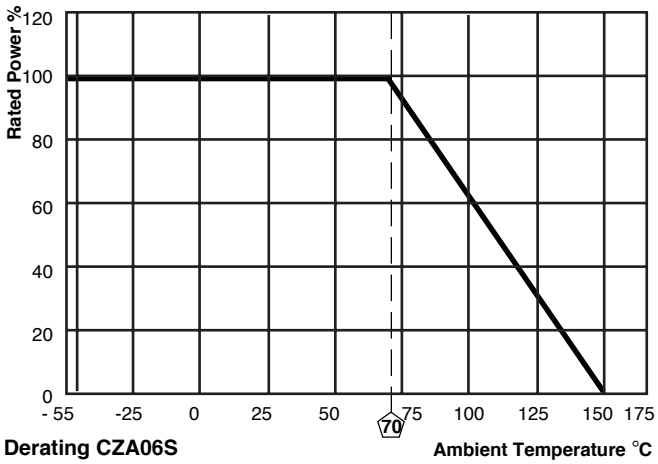
GLOBAL MODEL	DIMENSIONS in inches (millimeters)						
	L	W	T	A	P	B	B*
CZA04S	0.039 ± 0.004 [1.00 ± 0.10]	0.039 ± 0.006 [1.00 ± 1.15]	0.014 ± 0.004 [0.36 ± 0.10]	0.13 ± 0.006 [0.33 ± 0.15]	0.026 [0.65]	0.006 ± 0.004 [0.15 ± 0.10]	0.010 ± 0.004 [0.25 ± 0.10]
CZA06S	0.063 ± 0.006 [1.60 ± 0.15]	0.059 ± 0.006 [1.50 ± 1.15]	0.020 ± 0.004 [0.51 ± 0.10]	0.024 ± 0.006 [0.61 ± 0.15]	0.031 [0.80]	0.012 ± 0.006 [0.30 ± 0.15]	0.012 ± 0.006 [0.30 ± 0.15]

SOLDER PAD DIMENSIONS in inches (millimeters)

	c	w	d	a	b
CZA04S	0.018 [0.45]	0.083 [2.10]	0.083 [0.20]	0.018 [0.45]	0.032 [0.82]
CZA06S	0.031 [0.80]	0.122 [3.10]	0.014 [0.36]	0.024 [0.63]	0.045 [1.15]



Derating CZA04S



Derating CZA06S

PERFORMANCE

TEST	CONDITIONS OF TEST	TEST RESULTS	
		0.5dB to 5dB	6dB to 20dB
Endurance Test at 70°C per EIA 575-3.14	1000 hours at 70°C, 1.5 hours "ON", 0.5 hours "OFF"	± 0.2dB	± 0.3dB
Overload per EIA 575-3.6	Short time overload	± 0.2dB	± 0.3dB
Thermal Shock	per EIA 575-3.5	± 0.2dB	± 0.3dB
Moisture Resistance	per EIA 575-3.10	± 0.2dB	± 0.3dB
Resistance to Soldering Heat	10 seconds at 260°C solder bath temperature EIA 575 3.8	± 0.2dB	± 0.3db
High Temperature Exposure	per EIA 575-3.7	± 0.2dB	± 0.3dB
Low Temperature Operations	per EIA-575-3.6	± 0.2dB	± 0.3dB
Solderability & Leaching	EIA 575-3.12	95% Coverage	

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