

# SMD POWER INDUCTORS

『TZNS3024・TZNS4024・TZNS4035』  
『TZNS5028・TZNS5035・TZNS5048・TZNS7038・TZNS7053』

## ■ Features

- ・ Small size and high power.
- ・ High reliability for mechanical strength.
- ・ Variety of DC-DC converter inductor applications.

## ■ 特長

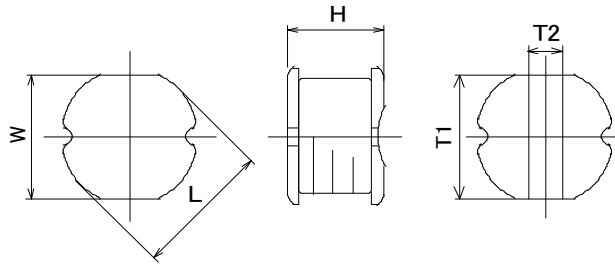
- ・ 小型で、ハイパワー。
- ・ 高信頼で機械的強度が高い。
- ・ 種々のDC-DC コンバータに応用出来ます。

## ■ Dimensions/形状寸法

Appearance/外観

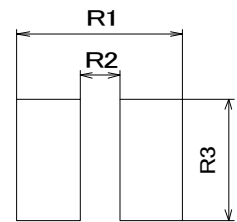


Dimensions/形状寸法



Recommended Patterns

推奨ランドパターン



Dimensions / 形状寸法

DSC Part Number	Dimensions				
	L	W	H	T1	T2
TZNS3024	3.5±0.3	3.0±0.3	2.4Max	3.0	1.2
TZNS4024	4.5±0.3	4.0±0.3	2.4Max	4.0	1.2
TZNS4035	4.5±0.3	4.0±0.3	3.5Max	4.0	1.2
TZNS5028	5.8±0.3	5.2±0.3	2.8Max	5.2	2.0
TZNS5035	5.8±0.3	5.2±0.3	3.5Max	5.2	2.0
TZNS5048	5.8±0.3	5.2±0.3	4.8Max	5.2	2.0
TZNS7038	7.8±0.3	7.0±0.3	3.8Max	7.0	2.5
TZNS7053	7.8±0.3	7.0±0.3	5.3Max	7.0	2.5
TZNS10057	10.0±0.3	9.0±0.3	5.7Max	9.0	2.9

Recommended Patterns / 推奨ランドパターン

DSC Part Number	Dimensions		
	R1	R2	R3
TZNS3024	3.5	1.2	3.5
TZNS4024	5.0	1.2	5.0
TZNS4035	5.0	1.2	5.0
TZNS5028	6.0	1.6	5.5
TZNS5035	6.0	1.6	5.5
TZNS5048	6.0	1.6	5.5
TZNS7038	8.0	2.0	8.0
TZNS7053	8.0	2.0	8.0
TZNS10057	12.5	2.5	9.5

■ Electric Specifications/電気特性

● TYPE TZSS3024 (3.5×3.0mm, 2.4mm Hight)

DSC Part Number	Inductance ( $\mu$ H)	Inductance Tolerance (%)	DC Resistance ( $m\Omega$ ) Max	Rated current (mA) Typ
TZNS3024-2R2	2.2	$\pm 30$	60	1,400
TZNS3024-3R3	3.3	$\pm 30$	90	1,250
TZNS3024-4R7	4.7	$\pm 30$	132	1,000
TZNS3024-6R8	6.8	$\pm 30$	148	850
TZNS3024-100	10	$\pm 20$	240	750
TZNS3024-150	15	$\pm 20$	360	600
TZNS3024-220	22	$\pm 20$	500	500
TZNS3024-330	33	$\pm 20$	740	450
TZNS3024-470	47	$\pm 20$	1,200	300

● TYPE TZSS4024 (4.5×4.0mm, 2.4mm Hight)

DSC Part Number	Inductance ( $\mu$ H)	Inductance Tolerance (%)	DC Resistance ( $m\Omega$ ) Max	Rated current (mA) Typ
TZNS4024-1R0	1.0	$\pm 30$	25	3,600
TZNS4024-2R2	2.2	$\pm 30$	80	2,000
TZNS4024-3R3	3.3	$\pm 30$	110	1,700
TZNS4024-4R7	4.7	$\pm 30$	130	1,600
TZNS4024-6R8	6.8	$\pm 30$	170	1,400
TZNS4024-100	10	$\pm 20$	230	1,200
TZNS4024-150	15	$\pm 20$	306	1,000
TZNS4024-220	22	$\pm 20$	390	900
TZNS4024-470	47	$\pm 20$	840	600

● TYPE TZSS4035 (4.5×4.0mm, 3.5mm Hight)

DSC Part Number	Inductance ( $\mu$ H)	Inductance Tolerance (%)	DC Resistance ( $m\Omega$ ) Max	Rated current (mA) Typ
TZNS4035-2R2	2.2	$\pm 30$	47	2,600
TZNS4035-3R3	3.3	$\pm 30$	58	2,100
TZNS4035-4R7	4.7	$\pm 30$	95	1,700
TZNS4035-6R8	6.8	$\pm 30$	120	1,400
TZNS4035-100	10	$\pm 20$	180	1,100
TZNS4035-150	15	$\pm 20$	235	900
TZNS4035-220	22	$\pm 20$	380	750
TZNS4035-330	33	$\pm 20$	540	640
TZNS4035-470	47	$\pm 20$	840	540

■ Electric Specifications/電気特性

● TYPE TZNS5028(5.8×5.2mm, 2.8mm Hight)

DSC Part Number	Inductance ( $\mu$ H)	Inductance Tolerance (%)	DC Resistance ( $m\Omega$ ) Max	Rated current (mA) Typ
TZNS5028-2R2	2.2	$\pm 30$	35	3,200
TZNS5028-3R3	3.3	$\pm 30$	56	2,500
TZNS5028-4R7	4.7	$\pm 30$	72	2,200
TZNS5028-6R8	6.8	$\pm 30$	98	1,900
TZNS5028-100	10	$\pm 20$	145	1,600
TZNS5028-150	15	$\pm 20$	200	1,300
TZNS5028-220	22	$\pm 20$	285	1,100
TZNS5028-330	33	$\pm 20$	400	900
TZNS5028-470	47	$\pm 20$	550	750

● TYPE TZNS5035(5.8×5.2mm, 3.5mm Hight)

DSC Part Number	Inductance ( $\mu$ H)	Inductance Tolerance (%)	DC Resistance ( $m\Omega$ ) Max	Rated current (mA) Typ
TZNS5035-1R0	1.0	$\pm 30$	19	4,000
TZNS5035-2R2	2.2	$\pm 30$	31	3,600
TZNS5035-3R3	3.3	$\pm 30$	40	3,000
TZNS5035-4R7	4.7	$\pm 30$	54	2,800
TZNS5035-6R8	6.8	$\pm 30$	76	2,000
TZNS5035-100	10	$\pm 20$	107	1,800
TZNS5035-150	15	$\pm 20$	150	1,500
TZNS5035-220	22	$\pm 20$	205	1,300
TZNS5035-470	47	$\pm 20$	560	800

● TYPE TZNS5048(5.8×5.2mm, 4.8mm Hight)

DSC Part Number	Inductance ( $\mu$ H)	Inductance Tolerance (%)	DC Resistance ( $m\Omega$ ) Max	Rated current (mA) Typ
TZNS5048-2R2	2.2	$\pm 30$	17	4,500
TZNS5048-3R3	3.3	$\pm 30$	34	3,000
TZNS5048-4R7	4.7	$\pm 30$	40	2,800
TZNS5048-6R8	6.8	$\pm 30$	80	2,500
TZNS5048-100	10	$\pm 20$	100	1,440
TZNS5048-150	15	$\pm 20$	140	1,200
TZNS5048-220	22	$\pm 20$	180	1,100
TZNS5048-330	33	$\pm 20$	210	880
TZNS5048-470	47	$\pm 20$	370	700

## ■ Electric Specifications/電気特性

### ● TYPE TZNS7038 (7.8×7.0mm, 3.8mm Hight)

DSC Part Number	Inductance ( $\mu$ H)	Inductance Tolerance (%)	DC Resistance ( $m\Omega$ ) Max	Rated current (mA) Typ
TZNS7038-2R2	2.2	±30	23	5,000
TZNS7038-3R3	3.3	±30	25	4,000
TZNS7038-4R7	4.7	±30	39	3,500
TZNS7038-6R8	6.8	±30	40	2,800
TZNS7038-100	10	±20	80	1,440
TZNS7038-150	15	±20	100	1,240
TZNS7038-220	22	±20	130	1,070
TZNS7038-330	33	±20	170	850
TZNS7038-470	47	±20	250	680

### ● TYPE TZNS7053 (7.8×7.0mm, 5.3mm Hight)

DSC Part Number	Inductance ( $\mu$ H)	Inductance Tolerance (%)	DC Resistance ( $m\Omega$ ) Max	Rated current (mA) Typ
TZNS7053-2R2	2.2	±30	16	5,300
TZNS7053-3R3	3.3	±30	20	4,500
TZNS7053-4R7	4.7	±30	26	4,000
TZNS7053-6R8	6.8	±30	32	3,200
TZNS7053-100	10	±20	48	2,800
TZNS7053-150	15	±20	68	1,800
TZNS7053-220	22	±20	91	1,500
TZNS7053-330	33	±20	130	1,300
TZNS7053-470	47	±20	190	1,100

### ● TYPE TZN10057 (10.0×9.0mm, 5.7mm Hight)

DSC Part Number	Inductance ( $\mu$ H)	Inductance Tolerance (%)	DC Resistance ( $m\Omega$ ) Max	Rated current (mA) Typ
TZNS10057-2R2	2.2	±30	12	9,000
TZNS10057-3R3	3.3	±30	13	8,000
TZNS10057-4R7	4.7	±30	19	6,000
TZNS10057-6R8	6.8	±30	23	5,800
TZNS10057-100	10	±20	31	5,200
TZNS10057-150	15	±20	43	4,000
TZNS10057-220	22	±20	57	3,600
TZNS10057-330	33	±20	86	2,800
TZNS10057-470	47	±20	115	2,400

## ■ Conditions/測定条件

(1)The saturation current is the current value which causes 30% inductance reduction from the initial value.

直流重畳許容電流は直流重畳された電流によりインダクタンスの値が低下し、30%以内となる直流電流の値である。

(2)The temperature rise current is the DC current value having temperature increase up to 40°C.

温度上昇許容電流は直流重畳された電流により温度上昇の値が40°Cとなる直流電流の値である。

(3)The rated current is the DC current that satisfies both of the saturation current and temperature rise current value.

定格電流は直流重畳許容電流と温度上昇許容電流の両方を満足する直流電流の値である。

(4)The measuring frequency and surroundings temperature are 100 kHz and 23°C, respectively.

測定周波数: 100kHz。測定周囲温度: 23°C。

## ■ Note/特記

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