

LOW PROFILE SMD POWER INDUCTORS



『TZSS3010FC・TZSS3012FC・TZSS4018FC・TZSS5040FC』
 『TZSS6012FC・TZSS6020FC・TZSS6028FC・TZSS6045FC・TZSS8040FC』

■ Features

- ・ Small size and low profile.
- ・ Magnetically shielded construction and low DC resistance.
- ・ The magnetic shield structure containing magnetic powder.
- ・ High reliability for mechanical strength.
- ・ Variety of DC-DC converter inductor applications.

■ 特長

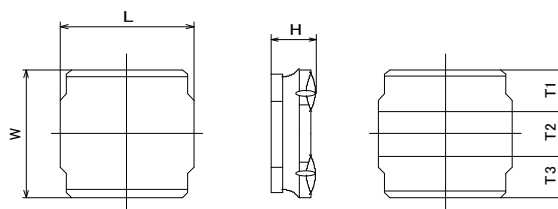
- ・ 小型で、低背タイプ。
- ・ 閉磁路で低電気抵抗タイプ。
- ・ 磁性レジンを用いた磁気シールド構造
- ・ 高信頼で機械的強度が高い。
- ・ 種々のDC-DC コンバータに応用出来ます。

■ Dimensions/形状寸法

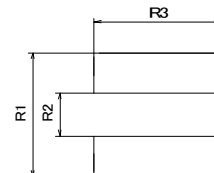
Appearance/外観



Dimensions/形状寸法



Recommended Patterns
推奨ランドパターン



Dimensions / 形状寸法

(mA) Max

DSC Part Number	Dimensions					
	L	W	H	T1	T2	T3
TZSS3010FC	3±0.2	3±0.2	1.0±0.2	1.0	1.0	1.0
TZSS3012FC			1.2±0.2			
TZSS4012FC	4±0.2	4±0.2	1.2±0.2	1.275	1.45	1.275
TZSS4018FC			1.8±0.2			
TZSS5040FC	4.9±0.2	4.9±0.2	4.0±0.2	1.2	2.5	1.2
TZSS6012FC	6±0.2	6±0.2	1.2±0.2	1.7	2.6	1.7
TZSS6020FC			2.0±0.2			
TZSS6028FC			2.8±0.2			
TZSS6045FC			4.5±0.2			
TZSS8040FC	8±0.3	8±0.3	4.0±0.2	2.0	4.0	2.0

Recommended Patterns / ランドパターン

DSC Part Number	Dimensions		
	R1	R2	R3
TZSS3010FC	3.4	1.0	3.2
TZSS3012FC			
TZSS4012FC	4.3	1.6	3.7
TZSS4018FC			
TZSS5040FC	5.3	2.3	4.7
TZSS6012FC	6.3	3.1	5.7
TZSS6020FC			
TZSS6028FC			
TZSS6045FC			
TZSS8040FC	8.7	4.7	7.5

■ Electric Specifications/電気特性

●TYPE TZSS3010FC (3.0×3.0mm, 1.0mm Hight, Magnetic Resin Shielded)

DSC Part Number	Inductance (μ H)	Inductance Tolerance (%)	DC Resistance ($m\Omega$) \pm 20%	Rated current	
				Saturation current (mA) Max	Temperature Rise Current (mA) Max
TZSS3010FC-2R2	2.2	\pm 20	100	1,180	1,300
TZSS3010FC-3R3	3.3	\pm 20	140	940	1,150
TZSS3010FC-4R7	4.7	\pm 20	240	800	900
TZSS3010FC-6R8	6.8	\pm 20	360	650	700
TZSS3010FC-100	10	\pm 20	450	530	600
TZSS3010FC-150	15	\pm 20	730	520	500
TZSS3010FC-220	22	\pm 20	910	370	400
TZSS3010FC-330	33	\pm 20	1,600	320	350
TZSS3010FC-470	47	\pm 20	1,900	260	300

●TYPE TZSS3012FC (3.0×3.0mm, 1.2mm Hight, Magnetic Resin Shielded)

DSC Part Number	Inductance (μ H)	Inductance Tolerance (%)	DC Resistance ($m\Omega$) \pm 20%	Rated current	
				Saturation current (mA) Max	Temperature Rise Current (mA) Max
TZSS3012FC-2R2	2.2	\pm 20	72	1,250	1,650
TZSS3012FC-3R3	3.3	\pm 20	90	1,020	1,500
TZSS3012FC-4R7	4.7	\pm 20	125	850	1,250
TZSS3012FC-6R8	6.8	\pm 20	180	760	950
TZSS3012FC-100	10	\pm 20	260	550	800
TZSS3012FC-150	15	\pm 20	400	520	700
TZSS3012FC-220	22	\pm 20	600	430	550
TZSS3012FC-330	33	\pm 20	930	340	450
TZSS3010FC-470	47	\pm 20	1,400	310	400

●TYPE TZSS4012FC (4.0×4.0mm, 1.2mm Hight, Magnetic Resin Shielded)

DSC Part Number	Inductance (μ H)	Inductance Tolerance (%)	DC Resistance ($m\Omega$) \pm 20%	Rated current	
				Saturation current (mA) Max	Temperature Rise Current (mA) Max
TZSS4012FC-1R0	1.0	\pm 20	55	4,800	2,400
TZSS4012FC-2R2	2.2	\pm 20	140	2,400	1,400
TZSS4012FC-3R3	3.3	\pm 20	160	2,000	1,200
TZSS4012FC-4R7	4.7	\pm 20	215	1,900	1,000
TZSS4012FC-6R8	6.8	\pm 20	260	1,600	900
TZSS4012FC-100	10	\pm 20	445	1,100	700
TZSS4012FC-150	15	\pm 20	1,110	800	500
TZSS4018FC-220	22	\pm 20	1,225	700	450
TZSS4018FC-470	47	\pm 20	2,080	600	350

●TYPE TZSS4018FC (4.0×4.0mm, 1.8mm Hight, Magnetic Resin Shielded)

DSC Part Number	Inductance (μ H)	Inductance Tolerance (%)	DC Resistance ($m\Omega$) \pm 20%	Rated current	
				Saturation current (mA) Max	Temperature Rise Current (mA) Max
TZSS4018FC-1R0	1.0	\pm 20	20	3700	3200
TZSS4018FC-2R2	2.2	\pm 20	39	2850	2400
TZSS4018FC-3R3	3.3	\pm 20	52	2300	2100
TZSS4018FC-4R7	4.7	\pm 20	70	1950	1720
TZSS4018FC-6R8	6.8	\pm 20	98	1600	1500
TZSS4018FC-100	10	\pm 20	145	1380	1300
TZSS4018FC-150	15	\pm 20	230	1120	1050
TZSS4018FC-220	22	\pm 20	290	900	720
TZSS4018FC-330	33	\pm 20	510	730	700
TZSS4018FC-470	47	\pm 20	650	620	640

■ Electric Specifications/電気特性

● TYPE TZSS5040FC (4.9×4.9mm, 4.0mm Hight, Magnetic Resin Shielded)

DSC Part Number	Inductance (μ H)	Inductance Tolerance (%)	DC Resistance ($m\Omega$) $\pm 20\%$	Rated current	
				Saturation current (mA) Max	Temperature Rise Current (mA) Max
TZSS5024FC-2R2	1.0	± 20	22	6,000	4,000
TZSS5024FC-2R2	2.2	± 20	28	4,500	3,500
TZSS5024FC-3R3	3.3	± 20	33	4,000	3,200
TZSS5024FC-4R7	4.7	± 20	38	3,000	3,000
TZSS5024FC-6R8	6.8	± 20	48	2,400	2,700
TZSS5024FC-100	10	± 20	73	2,200	2,200
TZSS5024FC-150	15	± 20	125	1,600	1,600
TZSS5024FC-220	22	± 20	220	1,400	1,200
TZSS5024FC-470	47	± 20	500	900	800

● TYPE TZSS6012FC (6.0×6.0mm, 1.2mm Hight, Magnetic Resin Shielded)

DSC Part Number	Inductance (μ H)	Inductance Tolerance (%)	DC Resistance ($m\Omega$) $\pm 20\%$	Rated current	
				Saturation current (mA) Typ	Temperature Rise Current (mA) Typ
TZSS6012FC-2R2	2.2	± 20	75	2150	2000
TZSS6012FC-3R3	3.3	± 20	90	1800	1800
TZSS6012FC-4R7	4.7	± 20	110	1450	1650
TZSS6012FC-6R8	6.8	± 20	160	1180	1350
TZSS6012FC-100	10	± 20	235	900	1100
TZSS6012FC-150	15	± 20	340	840	900
TZSS6012FC-220	22	± 20	470	760	800
TZSS6012FC-330	33	± 20	650	550	650
TZSS6012FC-470	47	± 20	930	450	560

● TYPE TZSS6020FC (6.0×6.0mm, 2.0mm Hight, Magnetic Resin Shielded)

DSC Part Number	Inductance (μ H)	Inductance Tolerance (%)	DC Resistance ($m\Omega$) $\pm 20\%$	Rated current	
				Saturation current (mA) Max	Temperature Rise Current (mA) Max
TZSS6020FC-2R2	2.2	± 30	27	3400	3800
TZSS6020FC-3R3	3.3	± 30	36	3100	3300
TZSS6020FC-4R7	4.7	± 20	47	2400	2800
TZSS6020FC-6R8	6.8	± 20	66	2100	2400
TZSS6020FC-100	10	± 20	95	1750	2000
TZSS6020FC-150	15	± 20	140	1450	1600
TZSS6020FC-220	22	± 20	210	1220	1350
TZSS6020FC-330	33	± 20	320	970	1100
TZSS6020FC-470	47	± 20	450	770	850

● TYPE TZSS6028FC (6.0×6.0mm, 2.8mm Hight, Magnetic Resin Shielded)

DSC Part Number	Inductance (μ H)	Inductance Tolerance (%)	DC Resistance ($m\Omega$) $\pm 20\%$	Rated current	
				Saturation current (mA) Max	Temperature Rise Current (mA) Max
TZSS6028FC-1R0	1.0	± 30	8	5600	5200
TZSS6028FC-2R2	2.2	± 30	17	5000	4200
TZSS6028FC-3R3	3.3	± 30	27	3600	3400
TZSS6028FC-4R7	4.7	± 20	34	3200	3000
TZSS6028FC-6R8	6.8	± 20	45	2800	2700
TZSS6028FC-100	10	± 20	64	2450	2300
TZSS6028FC-150	15	± 20	90	1850	1950
TZSS6028FC-220	22	± 20	133	1500	1600
TZSS6028FC-330	33	± 20	200	1200	1200
TZSS6028FC-470	47	± 20	305	1000	1000

■ Electric Specifications/電気特性

● TYPE TZSS6045FC (6.0×6.0mm, 4.5mm Hight, Magnetic Resin Shielded)

DSC Part Number	Inductance (μ H)	Inductance Tolerance (%)	DC Resistance ($m\Omega$) \pm 20%	Rated current	
				Saturation current (mA) Max	Temperature Rise Current (mA) Max
TZSS6045FC-2R2	2.2	\pm 30	15	5100	4850
TZSS6045FC-2R7	2.7	\pm 30	18	4850	4400
TZSS6045FC-4R7	4.7	\pm 30	27	4150	3800
TZSS6045FC-6R2	6.2	\pm 20	30	3600	3300
TZSS6045FC-100	10	\pm 20	48	2850	2750
TZSS6045FC-150	15	\pm 20	66	2350	2300
TZSS6045FC-220	22	\pm 20	100	1950	1900
TZSS6045FC-330	33	\pm 20	150	1550	1500
TZSS6045FC-470	47	\pm 20	210	1400	1300

● TYPE TZSS8040FC (8.0×8.0mm, 4.0mm Hight, Magnetic Resin Shielded)

DSC Part Number	Inductance (μ H)	Inductance Tolerance (%)	DC Resistance ($m\Omega$) \pm 20%	Rated current	
				Saturation current (mA) Max	Temperature Rise Current (mA) Max
TZSS8040FC-2R2	2.2	\pm 30	8	7200	7400
TZSS8040FC-3R3	3.3	\pm 30	12	6300	6300
TZSS8040FC-4R7	4.7	\pm 30	16	4700	5300
TZSS8040FC-6R8	6.8	\pm 30	22	4200	4600
TZSS8040FC-100	10	\pm 20	30	3200	3600
TZSS8040FC-150	15	\pm 20	45	2700	3000
TZSS8040FC-220	22	\pm 20	60	2300	2600
TZSS8040FC-330	33	\pm 20	90	1900	2100
TZSS8040FC-470	47	\pm 20	120	1700	1800

■ 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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