

DBSL1280-SERIES-A

2023-10-24 R1

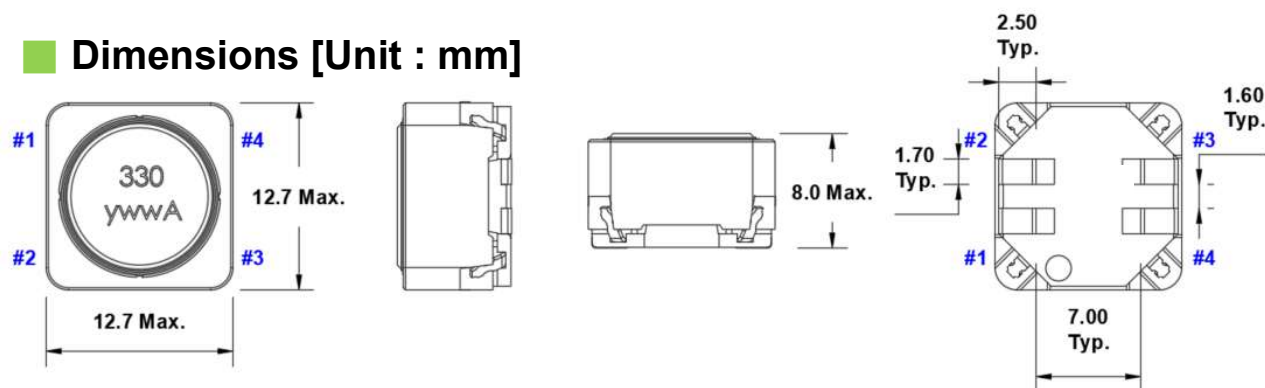
Applications

- DC/DC converters, especially for SEPIC topology
- Common mode choke
- 1:1 transformer

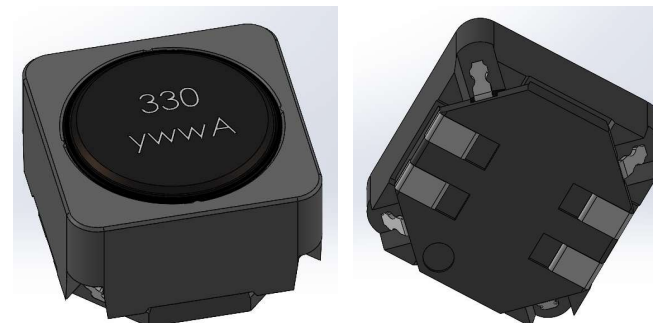
Environmental data

- Operating temperature range : -50°C ~ +165°C(component)
- Storage conditions (packaged) : -25°C ~ +40°C, ≤75% RH
- Complies with AEC-Q200 standard

Dimensions [Unit : mm]

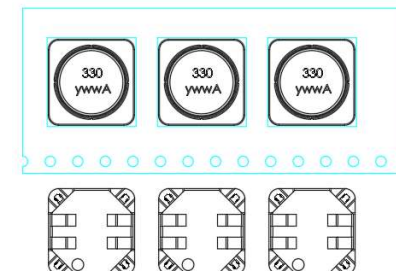
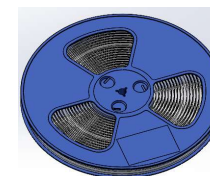


Picture

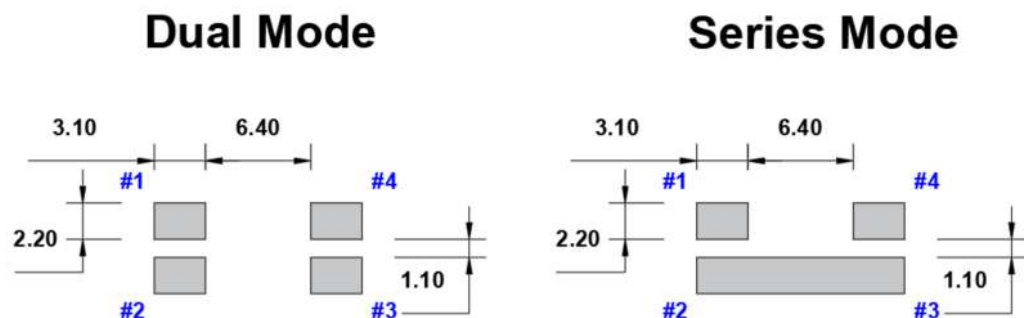


Packing(Quantity)

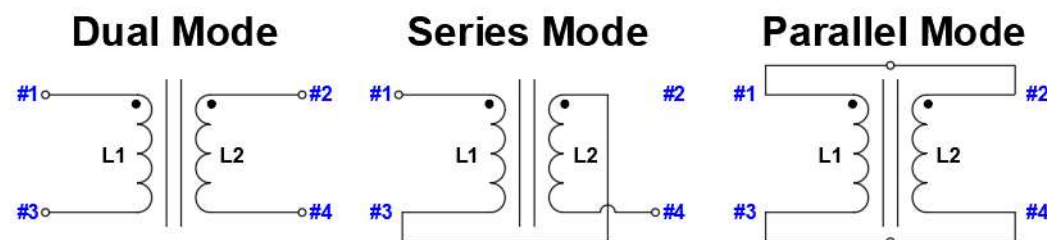
< 1 REEL : 500 PCS >



Recommended pad layout [Unit : mm]



Schematic



DBSL1280-SERIES-A

Specifications

Part No.	Dual Mode					
	Inductance ¹ (μH) ±20%	D.C.R. ² (mΩ)		Saturation Current DC AT 25°C(A) ³	Saturation Current DC AT 125°C(A) ⁴	Heat Rating Current DC(A) ⁵
		Typ.	Max.	Typ.	Typ.	Typ.
DBSL1280-100M-A	10	31.0	37.2	13.8	9.8	5.4
DBSL1280-150M-A	15	49.0	59.0	10.4	7.7	4.1
DBSL1280-220M-A	22	76.5	92.0	9.2	6.7	3.1
DBSL1280-330M-A	33	97.0	116.0	7.3	5.4	3.0
DBSL1280-470M-A	47	157.0	188.5	5.9	4.2	2.4
DBSL1280-680M-A	68	190.0	228.0	4.9	3.7	2.3

Part No.	Parallel Mode						Series Mode					
	Inductance ¹ (μH) ±20%	D.C.R. ² (mΩ)		Saturation Current DC AT 25°C(A) ³	Saturation Current DC AT 125°C(A) ⁴	Heat Rating Current DC(A) ⁵	Inductance ¹ (μH) ±25%	D.C.R. ² (mΩ)		Saturation Current DC AT 25°C(A) ³	Saturation Current DC AT 125°C(A) ⁴	Heat Rating Current DC(A) ⁵
		Typ.	Max.	Typ.	Typ.	Typ.		Typ.	Max.	Typ.	Typ.	Typ.
DBSL1280-100M-A	10	15.5	18.6	13.8	9.8	7.6	40	61.9	74.3	6.9	4.9	3.8
DBSL1280-150M-A	15	24.5	29.4	10.4	7.7	5.8	60	97.9	118	5.2	3.8	2.9
DBSL1280-220M-A	22	38.3	46.0	9.2	6.7	4.4	88	153	184	4.6	3.3	2.2
DBSL1280-330M-A	33	48.4	58.1	7.3	5.4	4.2	132	194	232	3.6	2.7	2.1
DBSL1280-470M-A	47	78.6	94.3	5.9	4.2	3.4	188	314	377	2.9	2.1	1.7
DBSL1280-680M-A	68	95.1	114	4.9	3.7	3.3	272	380	456	2.4	1.8	1.6

1. Measured using a Agilent 4284A with Agilent 42841A bias current source and Agilent 42842B test fixture at 100kHz, 1.0 V

2. DC resistance : Reference ambient temperature 25°C (Measured using a HIOKI 3540m Ω Hi-tester)

3. I sat : Maximum allowable DC current is that which causes a 30% inductance reduction from the initial value. (Reference ambient temperature 25°C)

4. I sat : Maximum allowable DC current is that which causes a 40% inductance reduction from the initial value. (Reference ambient temperature 125°C)

5. I rms : DC current for an approximate temperature rise of 40 °C without core loss. (Reference ambient temperature 25°C)

Temperature rise is highly dependent on many factors including P.C.B land pattern, trace size, and proximity to other components. Therefore temperature rise should be verified in application conditions.