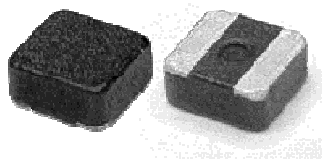


BDSP Series



The series is designed specifically to enhance DDR5 application performance. Better ACR value at light load and the DCR value at heavy load.

Furthermore, the saturation current performance is also optimal, helping to reduce the ripple current and enhance the efficiency.

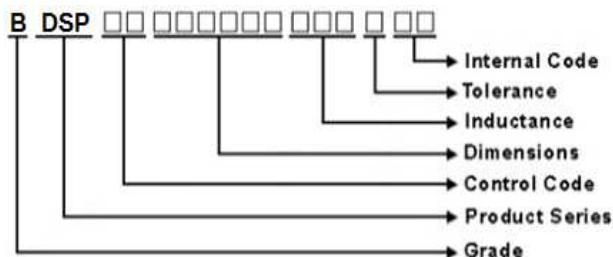
Features

- RoHS, Halogen Free and REACH Compliance
- Higher Isat and lower DCR · ACR with smaller chip size
- Low coil resistance with large currents.
- Low profile: 4.3mm x 4.3mm x 2.0mm
- High Efficiency

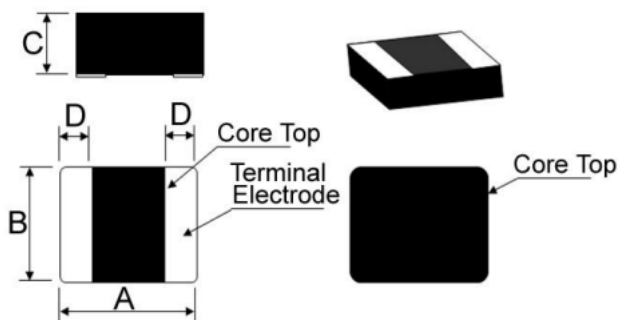
Applications

- Server
- Notebook
- SSD

Product Identification



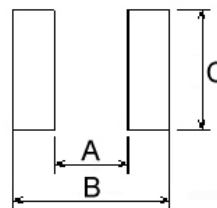
Shape and Dimensions



Dimensions in mm

TYPE	A	B	C	D
404020	4.0±0.3	4.0±0.3	2.0Max	1.3±0.3

Recommended Pattern



Dimensions in mm

TYPE	A	B	C
404020	1.1	4.3	4.3

Molding Power Inductors – BDSP Series

Electrical Characteristics

Part Number	Inductance (μ H)	Tolerance ($\pm\%$)	Test Frequency (MHz)	RDC(m Ω) Max(Typ)	Isat(A) Max(Typ)	Irms(A) Max(Typ)
BDSP00404020R47MJP	0.47	20	1	4.5(4.0)	9.2(11)	10.5(11.5)
BDSP00404020R68MJP	0.68	20	1	6.2(5.5)	8.0(9.2)	9.5(10.5)
BDSP004040201R0MJP	1.00	20	1	9.5(8.3)	6.0(7.5)	8.3(9.5)
BDSP004040201R2MJP	1.20	20	1	12.0(9.5)	5.0(6.5)	6.0(7.0)

Note: When ordering, please specify tolerance code. Tolerance: M= $\pm 20\%$

- Operating temperature range - 40°C ~ 125°C (Including self - temperature rise)
- Isat for Inductance drop 30% from its value without current
- I rms for a 40°C temperature rise from 25°C ambient with current
- Rated current : Isat or I rms, whichever is smaller
- Absolute maximum voltage 20VDC (Based on test method, it may not the same under different application, it is recommended to verify first.)

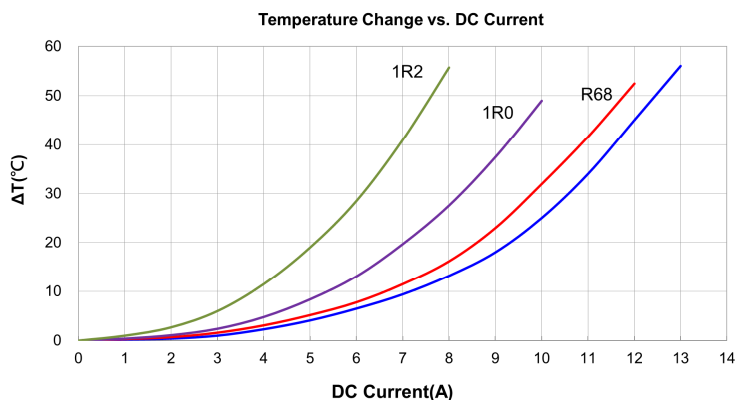
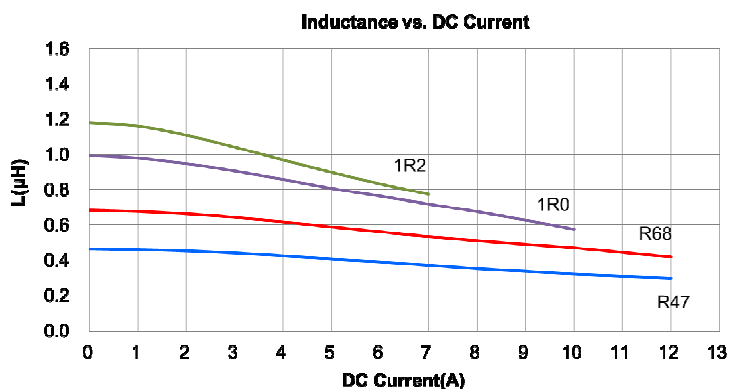
Test Instruments :

L : Agilent E4991/HP4286A+16197A/WP6500P (or equivalent), 1MHz 1V

DCR : CHEN HWA502BC/HP4338B (or equivalent)

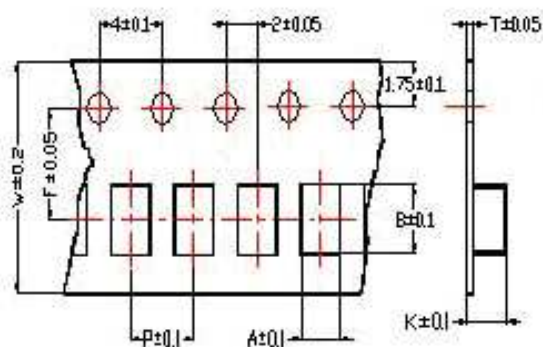
Isat : Agilent E4980A+HP42841A (or equivalent)

I rms : Agilent 6641 SYSTEM DC POWER SUPPLY (or equivalent)



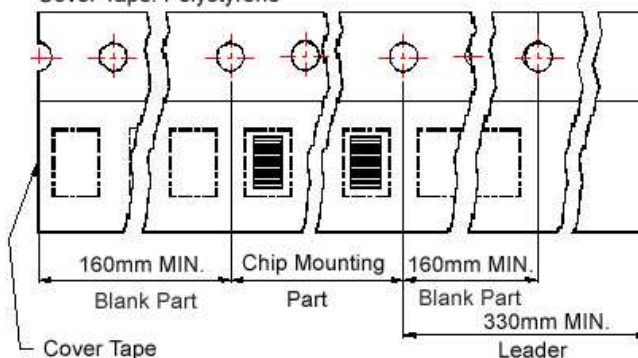
Packaging Specifications

Tape Dimensions

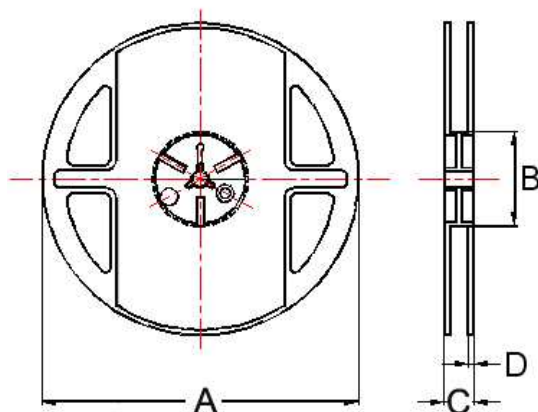


Tape Material

Carrier Tape: Polycarbonate
Cover Tape: Polystyrene



Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions							Reel Dimensions				Quantity PCS / REEL
	A	B	T	W	P	F	K	A	B	C	D	
404020	4.4	4.5	0.25	12	8	3.5	2.4	330	100	16	2	2000