Data Sheet

Customer:	
Product:	**DIP Power Inductor—DRGH Series**
Sizes.:	**664/855/875/895/110**
Issued Date:	**11-Apr-25**
Edition:	**REV.B9**

RoHS Compliant

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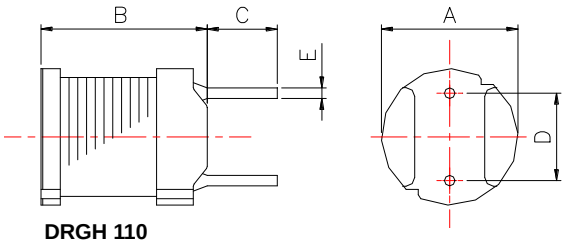
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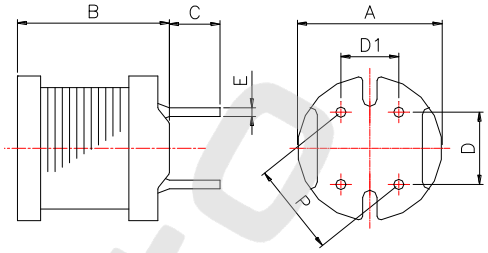
DIP Power Inductor



DRGH 664 / 855 / 875 / 895



DRGH 110



Dimensions

Unit: mm

Type	A	B max.	C	D	D1	E	P
DRGH664	6.0±0.5	6.5	4.0±1.0	4.0±0.3	–	0.50±0.1	–
DRGH855	7.8±0.5	5.5	5.0±1.0	5.0±0.3	–	0.65±0.1	–
DRGH875	7.8±0.5	7.5	5.0±1.0	5.0±0.3	–	0.65±0.1	–
DRGH895	7.8±0.5	9.5	5.0±1.0	5.0±0.3	–	0.65±0.1	–
DRGH110	10.0±0.5	10.5	3.5±1.0	5.0±0.3	4.0±0.3	0.70±0.1	6.40±0.5

Features

- Density design, small size, and low cost
- Comparatively range rated current and high inductance
- Low DCR and high dip stability

Inductance and rated current ranges

DRGH664	22～1000μH	1.27～0.19A
DRGH855	10～10000μH	2.50～0.081A
DRGH875	10～10000μH	2.90～0.084A
DRGH895	10～47000μH	2.60～0.038A
DRGH110	10～1000μH	5.30～0.53A

- Test equipment:
  L: HP4284A LCR meter
  DCR: Milli-ohm meter
- Electrical specifications at 25°C

Applications

- Personal Computers
- Variety of Battery Power Equipment
- DC Power Supply Circuits

Characteristics

- Rated DC Current: The current when the inductance becomes 10% lower than its initial value. (Ta=25°C)
- Operating temperature range -40～125°C

Product Identification

DRGH	664	K	B	100
Product Type	Dimensions (AxBxC)	Inductor Tolerance	Packaging Style	Inductance
	664: 6.0x6.5x4.0 855: 7.8x5.5x5.0 875: 7.8x7.5x5.0 895: 7.8x9.5x5.0 110: 10x10.5x3.5	J: ±5% K: ±10% M: ±20%	B: Bulk	100: 10μH 101: 100μH 102: 1000μH 103: 10000μH

■Electrical Characteristics

DRGH664 Type(□:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
DRGH664□B220	22	M	1KHz, 0.1V	0.11	1.27
DRGH664□B270	27	M	1KHz, 0.1V	0.14	1.14
DRGH664□B330	33	M	1KHz, 0.1V	0.17	1.03
DRGH664□B390	39	M	1KHz, 0.1V	0.19	0.95
DRGH664□B470	47	M	1KHz, 0.1V	0.23	0.87
DRGH664□B560	56	M	1KHz, 0.1V	0.26	0.80
DRGH664□B680	68	M	1KHz, 0.1V	0.28	0.72
DRGH664□B820	82	M	1KHz, 0.1V	0.39	0.66
DRGH664□B101	100	K	1KHz, 0.1V	0.43	0.59
DRGH664□B121	120	K	1KHz, 0.1V	0.54	0.54
DRGH664□B151	150	K	1KHz, 0.1V	0.64	0.48
DRGH664□B181	180	K	1KHz, 0.1V	0.74	0.44
DRGH664□B221	220	K	1KHz, 0.1V	0.96	0.40
DRGH664□B271	270	K	1KHz, 0.1V	1.12	0.36
DRGH664□B331	330	K	1KHz, 0.1V	1.48	0.33
DRGH664□B391	390	K	1KHz, 0.1V	1.66	0.30
DRGH664□B471	470	K	1KHz, 0.1V	1.91	0.27
DRGH664□B561	560	K	1KHz, 0.1V	2.31	0.25
DRGH664□B681	680	K	1KHz, 0.1V	2.67	0.23
DRGH664□B821	820	K	1KHz, 0.1V	3.10	0.21
DRGH664□B102	1000	K	1KHz, 0.1V	4.45	0.19

■Electrical Characteristics

DRGH855 Type(□:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
DRGH855□B100	10	M	1KHz, 0.1V	0.07	2.50
DRGH855□B120	12	M	1KHz, 0.1V	0.08	2.40
DRGH855□B150	15	M	1KHz, 0.1V	0.09	2.10
DRGH855□B180	18	M	1KHz, 0.1V	0.10	2.00
DRGH855□B220	22	M	1KHz, 0.1V	0.12	1.70
DRGH855□B270	27	M	1KHz, 0.1V	0.14	1.60
DRGH855□B330	33	M	1KHz, 0.1V	0.17	1.40
DRGH855□B390	39	M	1KHz, 0.1V	0.21	1.30
DRGH855□B470	47	M	1KHz, 0.1V	0.24	1.20
DRGH855□B560	56	M	1KHz, 0.1V	0.31	1.10
DRGH855□B680	68	M	1KHz, 0.1V	0.34	1.00
DRGH855□B820	82	M	1KHz, 0.1V	0.40	0.93
DRGH855□B101	100	K	1KHz, 0.1V	0.52	0.81
DRGH855□B121	120	K	1KHz, 0.1V	0.59	0.76
DRGH855□B151	150	K	1KHz, 0.1V	0.71	0.67
DRGH855□B181	180	K	1KHz, 0.1V	0.89	0.62
DRGH855□B221	220	K	1KHz, 0.1V	1.04	0.54
DRGH855□B271	270	K	1KHz, 0.1V	1.28	0.49
DRGH855□B331	330	K	1KHz, 0.1V	1.47	0.44
DRGH855□B391	390	K	1KHz, 0.1V	1.67	0.41
DRGH855□B471	470	K	1KHz, 0.1V	1.95	0.38
DRGH855□B561	560	K	1KHz, 0.1V	2.83	0.35
DRGH855□B681	680	K	1KHz, 0.1V	3.25	0.32
DRGH855□B821	820	K	1KHz, 0.1V	3.82	0.31
DRGH855□B102	1000	K	1KHz, 0.1V	5.28	0.25
DRGH855□B122	1200	K	1KHz, 0.1V	6.03	0.23
DRGH855□B152	1500	K	1KHz, 0.1V	7.15	0.21
DRGH855□B182	1800	K	1KHz, 0.1V	8.26	0.20
DRGH855□B222	2200	K	1KHz, 0.1V	11.1	0.18
DRGH855□B272	2700	K	1KHz, 0.1V	13.1	0.16
DRGH855□B332	3300	K	1KHz, 0.1V	15.9	0.14
DRGH855□B392	3900	K	1KHz, 0.1V	18.0	0.13
DRGH855□B472	4700	K	1KHz, 0.1V	23.9	0.12
DRGH855□B562	5600	K	1KHz, 0.1V	26.8	0.11
DRGH855□B682	6800	K	1KHz, 0.1V	31.7	0.098
DRGH855□B822	8200	K	1KHz, 0.1V	46.5	0.088
DRGH855□B103	10000	K	1KHz, 0.1V	55.7	0.081

■Electrical Characteristics

DRGH875 Type(□:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
DRGH875□B100	10	M	1KHz, 0.1V	0.05	2.90
DRGH875□B120	12	M	1KHz, 0.1V	0.06	2.50
DRGH875□B150	15	M	1KHz, 0.1V	0.07	2.20
DRGH875□B180	18	M	1KHz, 0.1V	0.08	1.90
DRGH875□B220	22	M	1KHz, 0.1V	0.09	1.80
DRGH875□B270	27	M	1KHz, 0.1V	0.11	1.70
DRGH875□B330	33	M	1KHz, 0.1V	0.13	1.50
DRGH875□B390	39	M	1KHz, 0.1V	0.14	1.30
DRGH875□B470	47	M	1KHz, 0.1V	0.15	1.30
DRGH875□B560	56	M	1KHz, 0.1V	0.18	1.20
DRGH875□B680	68	M	1KHz, 0.1V	0.20	1.10
DRGH875□B820	82	M	1KHz, 0.1V	0.24	1.00
DRGH875□B101	100	K	1KHz, 0.1V	0.28	0.89
DRGH875□B121	120	K	1KHz, 0.1V	0.36	0.81
DRGH875□B151	150	K	1KHz, 0.1V	0.42	0.72
DRGH875□B181	180	K	1KHz, 0.1V	0.57	0.66
DRGH875□B221	220	K	1KHz, 0.1V	0.63	0.57
DRGH875□B271	270	K	1KHz, 0.1V	0.88	0.51
DRGH875□B331	330	K	1KHz, 0.1V	1.05	0.46
DRGH875□B391	390	K	1KHz, 0.1V	1.17	0.44
DRGH875□B471	470	K	1KHz, 0.1V	1.34	0.41
DRGH875□B561	560	K	1KHz, 0.1V	1.72	0.36
DRGH875□B681	680	K	1KHz, 0.1V	1.96	0.33
DRGH875□B821	820	K	1KHz, 0.1V	2.56	0.30
DRGH875□B102	1000	K	1KHz, 0.1V	2.94	0.27
DRGH875□B122	1200	K	1KHz, 0.1V	4.04	0.24
DRGH875□B152	1500	K	1KHz, 0.1V	4.70	0.22
DRGH875□B182	1800	K	1KHz, 0.1V	5.05	0.20
DRGH875□B222	2200	K	1KHz, 0.1V	6.25	0.18
DRGH875□B272	2700	K	1KHz, 0.1V	8.72	0.16
DRGH875□B332	3300	K	1KHz, 0.1V	10.6	0.15
DRGH875□B392	3900	K	1KHz, 0.1V	14.2	0.14
DRGH875□B472	4700	K	1KHz, 0.1V	16.7	0.12
DRGH875□B562	5600	K	1KHz, 0.1V	18.7	0.11
DRGH875□B682	6800	K	1KHz, 0.1V	21.8	0.10
DRGH875□B822	8200	K	1KHz, 0.1V	28.7	0.093
DRGH875□B103	10000	K	1KHz, 0.1V	33.0	0.084

■Electrical Characteristics

DRGH895 Type(□:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
DRGH895□B100	10	M	100KHz, 0.1V	0.04	2.60
DRGH895□B120	12	M	100KHz, 0.1V	0.04	2.60
DRGH895□B150	15	M	100KHz, 0.1V	0.05	2.10
DRGH895□B180	18	M	100KHz, 0.1V	0.05	2.00
DRGH895□B220	22	M	100KHz, 0.1V	0.06	1.70
DRGH895□B270	27	M	100KHz, 0.1V	0.06	1.60
DRGH895□B330	33	M	100KHz, 0.1V	0.07	1.40
DRGH895□B390	39	M	100KHz, 0.1V	0.08	1.40
DRGH895□B470	47	M	100KHz, 0.1V	0.10	1.30
DRGH895□B560	56	M	100KHz, 0.1V	0.11	1.20
DRGH895□B680	68	M	100KHz, 0.1V	0.14	1.10
DRGH895□B820	82	M	100KHz, 0.1V	0.16	1.00
DRGH895□B101	100	K	1KHz, 0.1V	0.19	0.90
DRGH895□B121	120	K	1KHz, 0.1V	0.22	0.82
DRGH895□B151	150	K	1KHz, 0.1V	0.27	0.74
DRGH895□B181	180	K	1KHz, 0.1V	0.31	0.71
DRGH895□B221	220	K	1KHz, 0.1V	0.38	0.64
DRGH895□B271	270	K	1KHz, 0.1V	0.53	0.57
DRGH895□B331	330	K	1KHz, 0.1V	0.61	0.51
DRGH895□B391	390	K	1KHz, 0.1V	0.69	0.48
DRGH895□B471	470	K	1KHz, 0.1V	0.89	0.43
DRGH895□B561	560	K	1KHz, 0.1V	1.01	0.40
DRGH895□B681	680	K	1KHz, 0.1V	1.18	0.35
DRGH895□B821	820	K	1KHz, 0.1V	1.57	0.32
DRGH895□B102	1000	K	1KHz, 0.1V	1.84	0.30
DRGH895□B102-1	1000	K	1KHz, 0.25V	1.84	0.50
DRGH895□B122	1200	K	1KHz, 0.1V	2.10	0.27
DRGH895□B152	1500	K	1KHz, 0.1V	2.80	0.23
DRGH895□B182	1800	K	1KHz, 0.1V	3.21	0.21
DRGH895□B222	2200	K	1KHz, 0.1V	4.21	0.19
DRGH895□B272	2700	K	1KHz, 0.1V	4.94	0.17
DRGH895□B332	3300	K	1KHz, 0.1V	6.16	0.15
DRGH895□B392	3900	K	1KHz, 0.1V	6.84	0.14
DRGH895□B472	4700	K	1KHz, 0.1V	7.89	0.13
DRGH895□B562	5600	K	1KHz, 0.1V	11.50	0.12
DRGH895□B682	6800	K	1KHz, 0.1V	13.20	0.11
DRGH895□B822	8200	K	1KHz, 0.1V	15.20	0.10
DRGH895□B103	10000	J, K	1KHz, 0.1V	22.00	0.089
DRGH895□B123	12000	K	1KHz, 0.1V	25.00	0.073
DRGH895□B153	15000	K	1KHz, 0.1V	29.10	0.068
DRGH895□B183	18000	K	1KHz, 0.1V	38.90	0.066
DRGH895□B223	22000	K	1KHz, 0.1V	44.90	0.059
DRGH895□B273	27000	K	1KHz, 0.1V	55.70	0.052
DRGH895□B333	33000	K	1KHz, 0.1V	64.20	0.048
DRGH895□B393	39000	K	1KHz, 0.1V	74.20	0.042
DRGH895□B473	47000	K	1KHz, 0.1V	96.40	0.038

■Electrical Characteristics

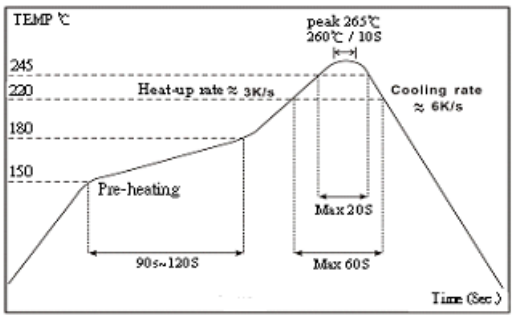
DRGH110 Type(□:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
DRGH110□B100	10	M	100KHz, 0.1V	0.022	5.30
DRGH110□B120	12	M	100KHz, 0.1V	0.023	4.90
DRGH110□B150	15	M	100KHz, 0.1V	0.026	4.40
DRGH110□B180	18	M	100KHz, 0.1V	0.033	4.00
DRGH110□B220	22	M	100KHz, 0.1V	0.037	3.60
DRGH110□B270	27	M	100KHz, 0.1V	0.048	3.30
DRGH110□B330	33	M	100KHz, 0.1V	0.055	2.90
DRGH110□B390	39	M	100KHz, 0.1V	0.073	2.70
DRGH110□B470	47	M	100KHz, 0.1V	0.083	2.50
DRGH110□B560	56	M	100KHz, 0.1V	0.092	2.30
DRGH110□B560-1	56	M	100KHz, 0.1V	0.1113	2.10
DRGH110□B680	68	M	100KHz, 0.1V	0.120	2.10
DRGH110□B820	82	M	100KHz, 0.1V	0.140	1.90
DRGH110□B101	100	K	1KHz, 0.1V	0.160	1.70
DRGH110□B121	120	K	1KHz, 0.1V	0.200	1.50
DRGH110□B151	150	K	1KHz, 0.1V	0.230	1.40
DRGH110□B181	180	K	1KHz, 0.1V	0.310	1.30
DRGH110□B221	220	K	1KHz, 0.1V	0.340	1.10
DRGH110□B271	270	K	1KHz, 0.1V	0.400	1.00
DRGH110□B331	330	K	1KHz, 0.1V	0.520	0.93
DRGH110□B391	390	K	1KHz, 0.1V	0.650	0.86
DRGH110□B471	470	K	1KHz, 0.1V	0.710	0.78
DRGH110□B561	560	K	1KHz, 0.1V	1.000	0.71
DRGH110□B681	680	K	1KHz, 0.1V	1.100	0.65
DRGH110□B821	820	K	1KHz, 0.1V	1.300	0.59
DRGH110□B102	1000	K	1KHz, 0.1V	1.800	0.53

■Package

Type	Parts plate	Parts Per bind
DRGH664	200	2400
DRGH855	200	2400
DRGH875	200	2400
DRGH895	200	2400
DRGH110	144	1296

■IR-Reflow



■Reliability of DIP Ferrite Wire Wound Power Inductor

Mechanical Performance

Item	Specification	Test Method
Vibration	Appearance: No damage L change: within±10% RDC: within specification	Test device shall be soldered on the substrate Oscillation Frequency: 10 to 55 to 10Hz for 1min Amplitude: 1.5mm Time: 2hrs for each axis (X, Y & Z), total 6hrs
Resistance to Soldering Heat	Appearance: No Damage	Pre-heating:150℃,1Min. Solder Composition: Sn/Ag/Cu=95.6/3.0/0.5 Solder Temperature: 260±5℃ Immersion Time: 4±1Sec.
Solderability	The electrodes shall be at least 90% covered with new solder coating	Pre-heating: 150℃, 1min Solder Composition: Sn/Ag/Cu=95.6/3.0/0.5 Solder Temperature: 245±5℃ Immersion Time: 4±1sec

Environmental Performance

<table>
<tr><th>Item</th><th>Specification</th><th colspan="3">Test Method</th></tr>
<tr><td>Temperature Shock</td><td rowspan="6">Appearance: No damage
L change: within±10%
RDC: within specification</td><td colspan="3">10 cycles (Air to Air) 1 cycles shall consist of:
30 minutes exposure to –55 ℃
30 minutes exposure to 125 ℃
15 seconds maximum transition between temperatures</td></tr>
<tr><td>Temperature Cycle</td><td colspan="3">One cycle:
<table><tr><th>Step</th><th>Temperature (℃)</th><th>Time (min)</th></tr><tr><td>1</td><td>-25±3</td><td>30</td></tr><tr><td>2</td><td>25±2</td><td>3</td></tr><tr><td>3</td><td>85±3</td><td>30</td></tr><tr><td>4</td><td>25±2</td><td>3</td></tr></table>Total: 100cycles
Measured after exposure in the room condition for 24hrs</td></tr>
<tr><td>Humidity Resistance</td><td colspan="3">Temperature: 40±2℃
Relative Humidity: 90 ~ 95%
Time: 1000hrs
Measured after exposure in the room condition for 24hrs</td></tr>
<tr><td>Heat Temperature Resistance</td><td colspan="3">Temperature: 85±3℃
Relative Humidity: 20%
Applied Current: Rated Current
Time: 1000hrs
Measured after exposure in the room condition for 24hrs</td></tr>
<tr><td>Low Temperature Resistance</td><td colspan="3">Temperature: -25±3℃
Relative Humidity: 0%
Time: 1000hrs
Measured after exposure in the room condition for 24hrs</td></tr>
</table>

■Storage Temperature: 5℃~25℃ ; Humidity: 25%~80%

■Shelf life: 1 years Max

REVISION HISTORY

REVISION	DATE	CHANGE NOTIFICATION	DESCRIPTION
Version B9	Apr 11,2025		-Modify Storage conditions.