

Data Sheet

Customer:

Product: DIP Power Inductor—DRGR Series

Sizes.: 664/875/110

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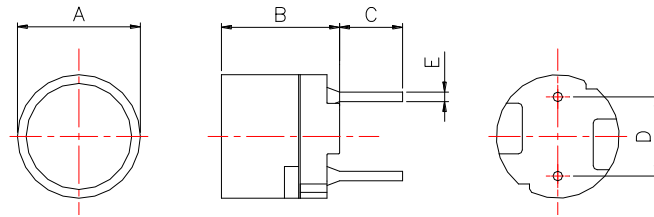
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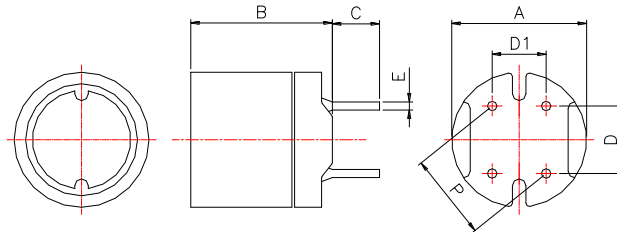
DIP Power Inductor



DRGR 664 / 875



DRGR 110



■ Dimensions

Unit: mm

Type	A	B	C	D	D1	E	P
DRGR664	6.0±0.5	6.5 max.	4.0±1.0	4.0±0.3	—	0.50±0.1	—
DRGR875	7.8±0.5	7.5 max.	5.0±1.0	5.0±0.3	—	0.65±0.1	—
DRGR110	10.5±0.5	10.5±0.5	3.5±1.0	5.0±0.3	4.0±0.3	0.80±0.1	6.40±0.5

■ Features

- Magnetically shielded & DIP type
- Comparatively range rated current and high inductance
- Low radiation and high dip stability

■ Inductance and rated current ranges

- DRGR664 22~1000μH 0.96~0.14A
- DRGR875 22~10000μH 1.60~0.074A
- DRGR110 10~1000μH 3.51~0.35A

— Test equipment:

L&Q: 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

DRGR	664	M	B	100
Product Type	Dimensions (AxBxC)	Inductor Tolerance	Packaging Style	Inductance
	664: 6.0x6.5x4.0 875: 7.8x7.5x5.0 110: 10.5x10.5x3.5	M: ±20%	B: Bulk	100: 10μH 101: 100μH 102: 1000μH

Electrical Characteristics

DRGR664 Type:

Part No	L (μ H)	Tolerance	Test Condition	DCR (Ω) max	IDC (A) max.
DRGR664MB220	22	$\pm 20\%$	100KHz, 0.1V	0.13	0.96
DRGR664MB270	27	$\pm 20\%$	100KHz, 0.1V	0.18	0.87
DRGR664MB330	33	$\pm 20\%$	100KHz, 0.1V	0.21	0.78
DRGR664MB390	39	$\pm 20\%$	100KHz, 0.1V	0.26	0.72
DRGR664MB470	47	$\pm 20\%$	100KHz, 0.1V	0.29	0.66
DRGR664MB560	56	$\pm 20\%$	100KHz, 0.1V	0.33	0.60
DRGR664MB680	68	$\pm 20\%$	100KHz, 0.1V	0.36	0.55
DRGR664MB820	82	$\pm 20\%$	100KHz, 0.1V	0.39	0.50
DRGR664MB101	100	$\pm 20\%$	1KHz, 0.1V	0.54	0.45
DRGR664MB121	120	$\pm 20\%$	1KHz, 0.1V	0.62	0.41
DRGR664MB151	150	$\pm 20\%$	1KHz, 0.1V	0.72	0.37
DRGR664MB181	180	$\pm 20\%$	1KHz, 0.1V	0.88	0.34
DRGR664MB221	220	$\pm 20\%$	1KHz, 0.1V	0.99	0.30
DRGR664MB271	270	$\pm 20\%$	1KHz, 0.1V	1.52	0.27
DRGR664MB331	330	$\pm 20\%$	1KHz, 0.1V	1.69	0.25
DRGR664MB391	390	$\pm 20\%$	1KHz, 0.1V	1.85	0.23
DRGR664MB471	470	$\pm 20\%$	1KHz, 0.1V	2.85	0.21
DRGR664MB561	560	$\pm 20\%$	1KHz, 0.1V	3.21	0.19
DRGR664MB681	680	$\pm 20\%$	1KHz, 0.1V	3.60	0.17
DRGR664MB821	820	$\pm 20\%$	1KHz, 0.1V	4.87	0.16
DRGR664MB102	1000	$\pm 20\%$	1KHz, 0.1V	5.56	0.14

DRGR875 Type:

Part No	L (μ H)	Tolerance	Test Condition	DCR (Ω) max	IDC (A) max.
DRGR875MB220	22	$\pm 20\%$	100KHz, 0.1V	0.08	1.60
DRGR875MB270	27	$\pm 20\%$	100KHz, 0.1V	0.10	1.40
DRGR875MB330	33	$\pm 20\%$	100KHz, 0.1V	0.14	1.30
DRGR875MB390	39	$\pm 20\%$	100KHz, 0.1V	0.15	1.20
DRGR875MB470	47	$\pm 20\%$	100KHz, 0.1V	0.17	1.10
DRGR875MB560	56	$\pm 20\%$	100KHz, 0.1V	0.19	0.99
DRGR875MB680	68	$\pm 20\%$	100KHz, 0.1V	0.21	0.89
DRGR875MB820	82	$\pm 20\%$	100KHz, 0.1V	0.27	0.81
DRGR875MB101	100	$\pm 20\%$	1KHz, 0.1V	0.32	0.74
DRGR875MB121	120	$\pm 20\%$	1KHz, 0.1V	0.36	0.67
DRGR875MB151	150	$\pm 20\%$	1KHz, 0.1V	0.51	0.60
DRGR875MB181	180	$\pm 20\%$	1KHz, 0.1V	0.57	0.55
DRGR875MB221	220	$\pm 20\%$	1KHz, 0.1V	0.76	0.50
DRGR875MB271	270	$\pm 20\%$	1KHz, 0.1V	0.86	0.45
DRGR875MB331	330	$\pm 20\%$	1KHz, 0.1V	0.97	0.41
DRGR875MB391	390	$\pm 20\%$	1KHz, 0.1V	1.28	0.37
DRGR875MB471	470	$\pm 20\%$	1KHz, 0.1V	1.44	0.34
DRGR875MB561	560	$\pm 20\%$	1KHz, 0.1V	1.61	0.31
DRGR875MB681	680	$\pm 20\%$	1KHz, 0.1V	2.07	0.28
DRGR875MB821	820	$\pm 20\%$	1KHz, 0.1V	2.33	0.26
DRGR875MB102	1000	$\pm 20\%$	1KHz, 0.1V	2.72	0.23
DRGR875MB122	1200	$\pm 20\%$	1KHz, 0.1V	3.98	0.21
DRGR875MB152	1500	$\pm 20\%$	1KHz, 0.1V	4.50	0.19
DRGR875MB182	1800	$\pm 20\%$	1KHz, 0.1V	6.81	0.17
DRGR875MB222	2200	$\pm 20\%$	1KHz, 0.1V	7.56	0.16
DRGR875MB272	2700	$\pm 20\%$	1KHz, 0.1V	8.54	0.14
DRGR875MB332	3300	$\pm 20\%$	1KHz, 0.1V	9.74	0.13
DRGR875MB392	3900	$\pm 20\%$	1KHz, 0.1V	12.90	0.12
DRGR875MB472	4700	$\pm 20\%$	1KHz, 0.1V	14.70	0.11
DRGR875MB562	5600	$\pm 20\%$	1KHz, 0.1V	20.40	0.099
DRGR875MB682	6800	$\pm 20\%$	1KHz, 0.1V	23.00	0.089
DRGR875MB822	8200	$\pm 20\%$	1KHz, 0.1V	30.60	0.081
DRGR875MB103	10000	$\pm 20\%$	1KHz, 0.1V	35.00	0.074

■Electrical Characteristics

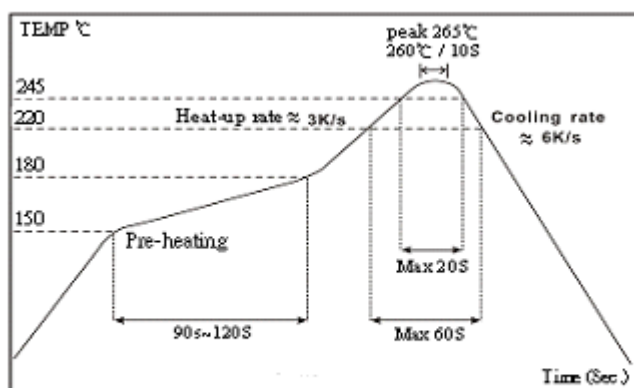
DRGR110 Type:

Part No	L (μ H)	Tolerance	Test Condition	DCR (Ω) max	IDC (A) max.
DRGR110MB100	10	$\pm 20\%$	100KHz, 0.1V	0.023	3.51
DRGR110MB120	12	$\pm 20\%$	100KHz, 0.1V	0.024	3.24
DRGR110MB150	15	$\pm 20\%$	100KHz, 0.1V	0.036	2.88
DRGR110MB180	18	$\pm 20\%$	100KHz, 0.1V	0.039	2.61
DRGR110MB220	22	$\pm 20\%$	100KHz, 0.1V	0.042	2.34
DRGR110MB270	27	$\pm 20\%$	100KHz, 0.1V	0.045	2.16
DRGR110MB330	33	$\pm 20\%$	100KHz, 0.1V	0.057	1.89
DRGR110MB390	39	$\pm 20\%$	100KHz, 0.1V	0.076	1.80
DRGR110MB470	47	$\pm 20\%$	100KHz, 0.1V	0.100	1.62
DRGR110MB560	56	$\pm 20\%$	100KHz, 0.1V	0.110	1.44
DRGR110MB680	68	$\pm 20\%$	100KHz, 0.1V	0.150	1.35
DRGR110MB820	82	$\pm 20\%$	100KHz, 0.1V	0.160	1.26
DRGR110MB101	100	$\pm 20\%$	1KHz, 0.1V	0.190	1.08
DRGR110MB121	120	$\pm 20\%$	1KHz, 0.1V	0.210	0.99
DRGR110MB151	150	$\pm 20\%$	1KHz, 0.1V	0.230	0.90
DRGR110MB181	180	$\pm 20\%$	1KHz, 0.1V	0.260	0.82
DRGR110MB221	220	$\pm 20\%$	1KHz, 0.1V	0.290	0.74
DRGR110MB271	270	$\pm 20\%$	1KHz, 0.1V	0.360	0.67
DRGR110MB331	330	$\pm 20\%$	1KHz, 0.1V	0.510	0.61
DRGR110MB391	390	$\pm 20\%$	1KHz, 0.1V	0.690	0.55
DRGR110MB471	470	$\pm 20\%$	1KHz, 0.1V	0.980	0.51
DRGR110MB561	560	$\pm 20\%$	1KHz, 0.1V	1.100	0.46
DRGR110MB681	680	$\pm 20\%$	1KHz, 0.1V	1.200	0.42
DRGR110MB821	820	$\pm 20\%$	1KHz, 0.1V	1.300	0.38
DRGR110MB102	1000	$\pm 20\%$	1KHz, 0.1V	1.500	0.35

■Package

Type	Parts plate	Parts Per bind
DRGR664	200	2400
DRGR875	200	2400
DRGR110	144	1296

■IR-Reflow



DIP Power Inductor

■ 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°C,1Min. Solder Composition: Sn/Ag/Cu=95.6/3.0/0.5 Solder Temperature: 260±5°C Immersion Time: 4±1Sec.
Solderability	The electrodes shall be at least 90% covered with new solder coating	Pre-heating: 150°C, 1min Solder Composition: Sn/Ag/Cu=95.6/3.0/0.5 Solder Temperature: 245±5°C Immersion Time: 4±1sec

Environmental Performance

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

■ Storage Temperature: 5°C~25°C ; Humidity: 25%~80%

■ Shelf life: 1 years Max

REVISION HISTORY

<u>REVISION</u>	<u>DATE</u>	<u>CHANGE NOTIFICATION</u>	<u>DESCRIPTION</u>
Version B6	Apr 14,2025		-Modify Storage conditions and add Shelf life.