

TOKO #822LY-4R7M alternatives

Power Inductors

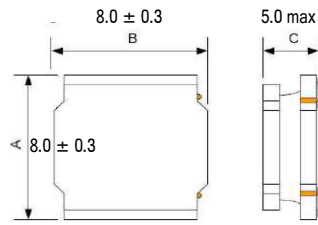
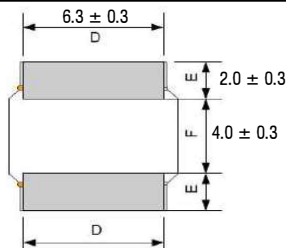


Drop-in alternative > 02-227F-4R7M

or

TSN8040S-4R7MT > SMD



	TOKO	>	BEC alternative 1	BEC alternative 2
Product Code	#822LY - 4R7M	>	02 - 227F-4R7M	TSNR8040S-4R7MT
Type	Through-Hole	>	Through-Hole	SMD
Manufacturer	Japan	>	USA	China
Inductance (μH)	4.7	>	4.7	4.7
Tolerance (%)	± 20	>	± 20	± 20
DC Resistance (Ω) Max	0.03	>	0.030	0.025
Rated DC Current (A) Max.	2.27	>	4.3	5.9
Self-resonant Frequency (MHz) Min.	51	>	51	24
Diameter 	8.5 mm	>	8.5 mm	
Height 	11.0 mm	>	11.0 mm	
Legs 	5.0 mm	>	5.0 mm	
Distance between legs 	5.0 mm	>	5.0 mm	

Features (SMD) :



- ◆ Excellent solderability and high heat resistance.
- ◆ Magnetic-resin shielded construction reduces buzz noise to ultra-low levels.
- ◆ Ferrite core has excellent impact resistance and non-damage durability.
- ◆ Closed magnetic circuit design reduces leakage flux and electro magnetic interference.
- ◆ 30% higher current rating than conventional inductors of equal size.
- ◆ Takes up less PCB real estate and save more power.

Applications :

- ◆ LED Lighting, VR, AR.
- ◆ Flat-screen TVs, Blue-ray disc recorders, set top box, movie cameras, smart phone.
- ◆ Notebooks, desktop computers, servers, graphic cards.
- ◆ Portable grming devices, personal navigation systems, personal mulitmedia devices.
- ◆ Telecom base stations.

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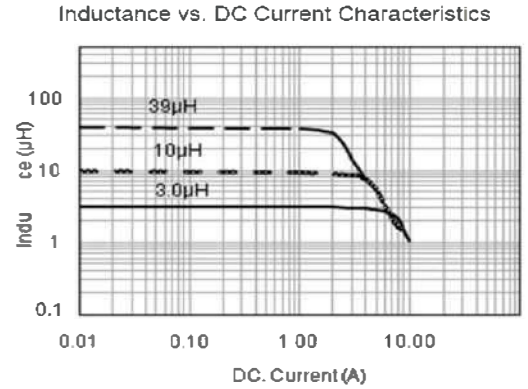
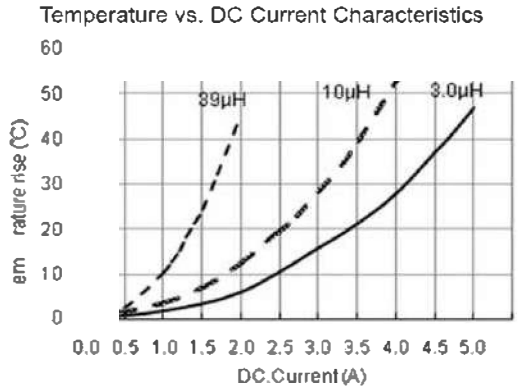
Electrical Specification | TSNR8040S Series

Part Number	Inductance ^①	Heat Rating current ^②		Saturation current ^③		DC Resistance ^④		Self resonant frequency
	L [μ H]	I _{rms} [A]		I _{sat} [A]		R _{DC} [Ω] max.		S.R.F [MHz] Min.
		Typ.	Max.	Typ.	Max.	Typ.	Max.	
TSNR8040S-1R2NT	1.2 $\pm$ 30%	5.65	6.20	10.00	14.00	0.013	0.010	59
TSNR8040S-1R5NT	1.5 $\pm$ 30%	5.65	6.20	8.15	11.00	0.013	0.010	67
TSNR8040S-2R0NT	2.0 $\pm$ 30%	5.15	5.60	9.25	10.00	0.016	0.012	43
TSNR8040S-2R2NT	2.2 $\pm$ 30%	5.15	5.60	7.10	8.00	0.016	0.012	41
TSNR8040S-3R0NT	3.0 $\pm$ 30%	4.70	5.20	6.10	7.00	0.018	0.014	32
TSNR8040S-3R3NT	3.3 $\pm$ 30%	4.40	4.80	6.50	7.00	0.022	0.017	27
TSNR8040S-3R6NT	3.6 $\pm$ 30%	4.35	4.80	7.52	8.50	0.022	0.017	30
TSNR8040S-3R9NT	3.9 $\pm$ 30%	4.35	4.80	5.75	6.50	0.022	0.017	26
TSNR8040S-4R7NT	4.7 $\pm$ 30%	4.10	4.50	5.90	6.50	0.025	0.019	24
TSNR8040S-5R1NT	5.1 $\pm$ 30%	4.05	4.40	4.70	5.40	0.025	0.019	22
TSNR8040S-5R6NT	5.6 $\pm$ 30%	3.85	4.20	6.00	6.90	0.027	0.021	24
TSNR8040S-6R2NT	6.2 $\pm$ 30%	3.85	4.20	4.45	5.10	0.027	0.021	20
TSNR8040S-6R8MT	6.8 $\pm$ 20%	3.60	4.00	4.55	5.20	0.031	0.024	20
TSNR8040S-8R2MT	8.2 $\pm$ 20%	3.45	3.80	4.20	4.80	0.034	0.026	17
TSNR8040S-100MT	10 $\pm$ 20%	3.30	3.60	3.60	4.10	0.038	0.029	15
TSNR8040S-120MT	12 $\pm$ 20%	2.80	3.00	3.50	4.00	0.053	0.041	13
TSNR8040S-150MT	15 $\pm$ 20%	2.60	2.80	2.95	3.40	0.061	0.047	12
TSNR8040S-180MT	180 $\pm$ 20%	2.40	2.60	2.70	3.10	0.069	0.053	11
TSNR8040S-220MT	22 $\pm$ 20%	2.10	2.30	2.40	2.70	0.090	0.069	9.5
TSNR8040S-270MT	27 $\pm$ 20%	2.00	2.20	2.15	2.50	0.101	0.078	9.2
TSNR8040S-330MT	33 $\pm$ 20%	1.80	2.00	2.05	2.40	0.126	0.097	7.8
TSNR8040S-360MT	36 $\pm$ 20%	1.75	1.90	2.00	2.30	0.133	0.102	7.8
TSNR8040S-390MT	39 $\pm$ 20%	1.70	1.90	1.95	2.20	0.139	0.107	7.8
TSNR8040S-430MT	43 $\pm$ 20%	1.65	1.80	1.90	2.20	0.147	0.113	7.8
TSNR8040S-470MT	47 $\pm$ 20%	1.55	1.70	1.75	2.00	0.177	0.136	6.4
TSNR8040S-510MT	51 $\pm$ 20%	1.50	1.60	1.70	1.90	0.185	0.142	6.4
TSNR8040S-560MT	56 $\pm$ 20%	1.45	1.60	1.55	1.70	0.192	0.148	6.4
TSNR8040S-620MT	62 $\pm$ 20%	1.30	1.40	1.50	1.60	0.237	0.182	6.4
TSNR8040S-680MT	68 $\pm$ 20%	1.25	1.40	1.45	1.60	0.255	0.196	4.9
TSNR8040S-750MT	75 $\pm$ 20%	1.20	1.30	1.35	1.50	0.274	0.211	4.9
TSNR8040S-820MT	82 $\pm$ 20%	1.15	1.20	1.30	1.40	0.293	0.225	5.9
TSNR8040S-910MT	91 $\pm$ 20%	1.05	1.10	1.20	1.30	0.354	0.272	4.9
TSNR8040S-101MT	100 $\pm$ 20%	1.00	1.10	1.15	1.30	0.377	0.299	4.2
TSNR8040S-121MT	120 $\pm$ 20%	0.95	1.00	1.05	1.10	0.434	0.334	3.5
TSNR8040S-151MT	150 $\pm$ 20%	0.85	0.94	1.10	1.20	0.533	0.410	3.5
TSNR8040S-181MT	180 $\pm$ 20%	0.83	0.92	0.95	1.15	0.676	0.520	3.5
TSNR8040S-221MT	220 $\pm$ 20%	0.80	0.88	0.85	0.94	0.779	0.599	3.5
TSNR8040S-331MT	330 $\pm$ 20%	0.64	0.70	0.68	0.75	1.156	0.889	2.8
TSNR8040S-471MT	470 $\pm$ 20%	0.50	0.60	0.60	0.70	1.625	1.260	2.1
TSNR8040S-681MT	680 $\pm$ 20%	0.45	0.50	0.50	0.60	2.652	2.040	1.7
TSNR8040S-102MT	1000 $\pm$ 20%	0.35	0.40	0.40	0.50	3.640	2.800	1.4
TSNR8040S-152MT	1500 $\pm$ 20%	0.26	0.27	0.32	0.38	6.500	5.000	1.0

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1. Inductance measured at: 100kHz, 1Vrms, 0Adc, on an Agilent/HP4284A LCR meter or equivalent.
2. Heat rating current : DC current that causes the temperature rise ($\Delta t=40^{\circ}\text{C}$) from 20°C ambient.
3. Isat current : DC current at which the inductance drops approximate 30% from its value without current.
4. All test data is referenced to 20°C ambient.
5. Rated current: Isat or Irms, whichever is smaller.

Typical Electrical Characteristics:



BEC
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◆ Reel & Tape Dimensions [mm]

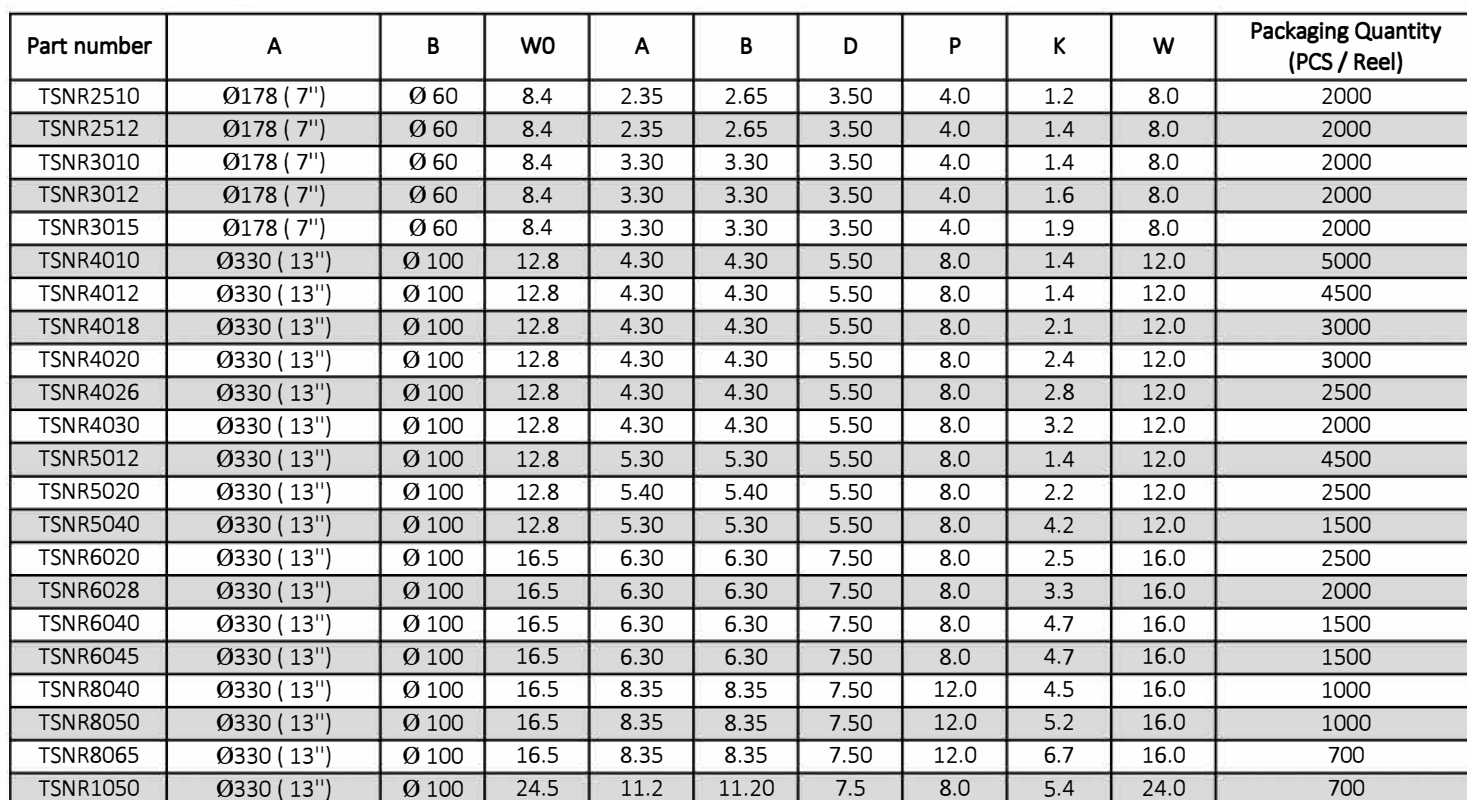


Figure 1: Schematic diagram of a segmented chip breaker. The diagram shows a side view of a chip breaker with a central 'Chip Cavity' and 'Blank Portions' on either side. Dimensions are specified: '160mm Min.' for the left blank portion, '400mm Min.' for the total length, and '100mm Min.' for the right blank portion. A 'Leader' section is shown at the far right. The 'Direction of Feed' is indicated by an arrow pointing to the right. The chip breaker is composed of multiple segments, each with a central hole and a square feature.

The force for tearing off 8mm cover tape is 10gf to 100gf and 10gf to 130gf for 12mm to 56mm cover tape in the arrow direction at the following conditions: Temperature: +5 to 35°C, Humidity: 45 to 85%, Atmospheric pressure: 860 to 1060 hpa.

