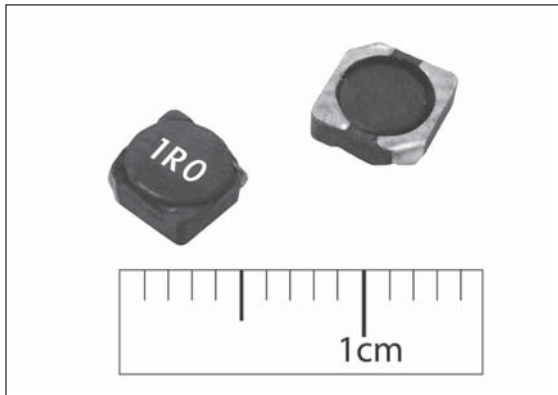


# SMD POWER INDUCTORS (EB-XXN SERIES)

**trio**



## ● PART NUMBERING

EB - □□□ □ □□ □ □□  
(1) (2) (3) (4) (5) (6)

- (1) Series
- (2) Inductance
- (3) Tolerance
- (4) Dimension
- (5) Material
- (6) Internal Serial No.

EB  
48

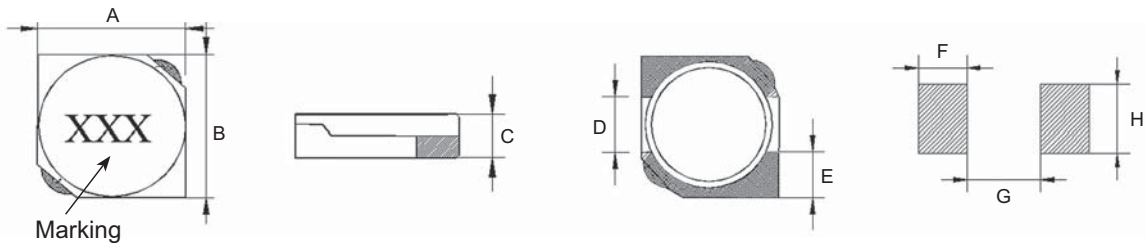
## ● FEATURES

- Low profile.
- Various footprint in difference sizes for board designs.
- Magnetic shielded drum core construction with minimal power loss.
- Excellent solderability and high heat resistance.
- Low EMI and high current rating.

## ● APPLICATIONS

- DC/DC converters
- Computers and PDAs
- Mobile phones
- PCMCIA cards
- GPS systems
- Digital cameras and DVD players

## ● CONFIGURATIONS & DIMENSIONS



Unit : mm

SERIES	A	B	C	D	E	F	G	H
EB-89N	4.2 Max.	4.2 Max.	2.0 Max.	1.8 Typ.	1.0 Typ.	1.30 Typ.	1.5 Typ.	4.2 Typ.
EB-29N	5.3 Max.	5.3 Max.	2.1 Max.	2.0 Typ.	1.5 Typ.	1.90 Typ.	1.5 Typ.	5.3 Typ.
EB-08N	5.2 Max.	5.2 Max.	3.2 Max.	2.0 Typ.	1.0 Typ.	1.90 Typ.	1.5 Typ.	5.3 Typ.
EB-28N	6.2 Max.	6.2 Max.	2.0 Max.	2.0 Typ.	1.8 Typ.	2.15 Typ.	2.0 Typ.	6.3 Typ.

• For packaging information, please refer to page P.100.

● ELECTRICAL CHARACTERISTICS

New Part No.	Old Part No.	L ( $\mu$ H)	FREQ. (KHz/0.1V)	DCR ( $\Omega$ , Max.)	Isat (A, Max.)	Irms (A, Max.)
EB-30A□89N□□	SDSG417PH-3R0□	3.0	100	0.0690	1.60	1.80
EB-47A□89N□□	SDSG417PH-4R7□	4.7	100	0.1075	1.35	1.35
EB-68A□89N□□	SDSG417PH-6R8□	6.8	100	0.1500	1.10	1.10
EB-100□89N□□	SDSG417PH-100□	10	100	0.2050	0.90	0.90
EB-150□89N□□	SDSG417PH-150□	15	100	0.3010	0.75	0.75
EB-220□89N□□	SDSG417PH-220□	22	100	0.4240	0.60	0.60
EB-330□89N□□	SDSG417PH-330□	33	100	0.6400	0.50	0.45
EB-470□89N□□	SDSG417PH-470□	47	100	0.9640	0.40	0.35
EB-10A□29N□□	SDSG517PH-1R0□	1.0	100	0.045	2.06	1.72
EB-22A□29N□□	SDSG517PH-2R2□	2.2	100	0.075	1.58	1.32
EB-27A□29N□□	SDSG517PH-2R7□	2.7	100	0.105	1.54	1.28
EB-33A□29N□□	SDSG517PH-3R3□	3.3	100	0.110	1.25	1.04
EB-39A□29N□□	SDSG517PH-3R9□	3.9	100	0.155	1.06	0.88
EB-47A□29N□□	SDSG517PH-4R7□	4.7	100	0.162	1.01	0.84
EB-56A□29N□□	SDSG517PH-5R6□	5.6	100	0.170	0.96	0.80
EB-68A□29N□□	SDSG517PH-6R8□	6.8	100	0.200	0.91	0.76
EB-82A□29N□□	SDSG517PH-8R2□	8.2	100	0.245	0.82	0.68
EB-100□29N□□	SDSG517PH-100□	10	100	0.200	0.73	0.61
EB-120□29N□□	SDSG517PH-120□	12	100	0.210	0.67	0.56
EB-150□29N□□	SDSG517PH-150□	15	100	0.240	0.60	0.50
EB-180□29N□□	SDSG517PH-180□	18	100	0.338	0.58	0.48
EB-220□29N□□	SDSG517PH-220□	22	100	0.397	0.49	0.41
EB-270□29N□□	SDSG517PH-270□	27	100	0.441	0.42	0.35
EB-330□29N□□	SDSG517PH-330□	33	100	0.694	0.38	0.32
EB-390□29N□□	SDSG517PH-390□	39	100	0.709	0.36	0.30
EB-470□29N□□	SDSG517PH-470□	47	100	0.922	0.34	0.28
EB-560□29N□□	SDSG517PH-560□	56	100	1.080	0.31	0.26
EB-680□29N□□	SDSG517PH-680□	68	100	1.300	0.29	0.24
EB-820□29N□□	SDSG517PH-820□	82	100	1.560	0.26	0.22
EB-101□29N□□	SDSG517PH-101□	100	100	1.730	0.24	0.20
EB-121□29N□□	SDSG517PH-121□	120	100	2.390	0.22	0.18
EB-151□29N□□	SDSG517PH-151□	150	100	2.670	0.18	0.15
EB-181□29N□□	SDSG517PH-181□	180	100	4.000	0.17	0.14

- Tested at 25°C.
- Temperature rise : 40°C Typ. at Irms
- Inductance drop : 35% Typ. at Isat
- Operating temperature : -55°C to +105°C
- Storage temperature : -40°C to +85°C

EB  
49

● ELECTRICAL CHARACTERISTICS

New Part No.	Old Part No.	L ( $\mu$ H)	FREQ. (KHz/0.1V)	DCR ( $\Omega$ , Max.)	Isat (A, Max.)	Irms (A, Max.)
EB-12A□08N□□	SDSG53PH-1R2□	1.2	100	0.0236	3.07	2.56
EB-18A□08N□□	SDSG53PH-1R8□	1.8	100	0.0275	2.64	2.20
EB-22A□08N□□	SDSG53PH-2R2□	2.2	100	0.0313	2.45	2.04
EB-27A□08N□□	SDSG53PH-2R7□	2.7	100	0.0433	1.92	1.60
EB-33A□08N□□	SDSG53PH-3R3□	3.3	100	0.0492	1.88	1.57
EB-39A□08N□□	SDSG53PH-3R9□	3.9	100	0.0648	1.73	1.44
EB-47A□08N□□	SDSG53PH-4R7□	4.7	100	0.0720	1.58	1.32
EB-56A□08N□□	SDSG53PH-5R6□	5.6	100	0.1009	1.40	1.17
EB-68A□08N□□	SDSG53PH-6R8□	6.8	100	0.1089	1.34	1.12
EB-82A□08N□□	SDSG53PH-8R2□	8.2	100	0.1175	1.25	1.04
EB-100□08N□□	SDSG53PH-100□	10	100	0.1283	1.20	1.00
EB-120□08N□□	SDSG53PH-120□	12	100	0.1316	1.01	0.84
EB-150□08N□□	SDSG53PH-150□	15	100	0.1490	0.91	0.76
EB-180□08N□□	SDSG53PH-180□	18	100	0.1660	0.86	0.72
EB-220□08N□□	SDSG53PH-220□	22	100	0.2350	0.84	0.70
EB-270□08N□□	SDSG53PH-270□	27	100	0.2610	0.70	0.58
EB-330□08N□□	SDSG53PH-330□	33	100	0.3313	0.67	0.56
EB-390□08N□□	SDSG53PH-390□	39	100	0.3837	0.60	0.50
EB-470□08N□□	SDSG53PH-470□	47	100	0.5870	0.58	0.48
EB-560□08N□□	SDSG53PH-560□	56	100	0.6245	0.49	0.41
EB-680□08N□□	SDSG53PH-680□	68	100	0.6990	0.42	0.35
EB-820□08N□□	SDSG53PH-820□	82	100	0.9148	0.38	0.32
EB-101□08N□□	SDSG53PH-101□	100	100	1.0200	0.35	0.29
EB-121□08N□□	SDSG53PH-121□	120	100	1.2700	0.32	0.27
EB-151□08N□□	SDSG53PH-151□	150	100	1.3500	0.29	0.24
EB-181□08N□□	SDSG53PH-181□	180	100	1.5400	0.26	0.22

EB  
50

- Tested at 25°C.
- Temperature rise : 40°C Typ. at Irms
- Inductance drop : 35% Typ. at Isat
- Operating temperature : -55°C to +105°C
- Storage temperature : -40°C to +85°C

● ELECTRICAL CHARACTERISTICS

New Part No.	Old Part No.	L ( $\mu$ H)	FREQ. (KHz/0.1V)	DCR ( $\Omega$ , Max.)	Isat (A, Max.)	Irms (A, Max.)
EB-41A□28N□□	SDSG617PH-4R1□	4.1	100	0.057	2.34	1.95
EB-54A□28N□□	SDSG617PH-5R4□	5.4	100	0.076	1.92	1.60
EB-62A□28N□□	SDSG617PH-6R2□	6.2	100	0.096	1.68	1.40
EB-89A□28N□□	SDSG617PH-8R9□	8.9	100	0.116	1.50	1.25
EB-100□28N□□	SDSG617PH-100□	10	100	0.124	1.44	1.20
EB-120□28N□□	SDSG617PH-120□	12	100	0.153	1.32	1.10
EB-150□28N□□	SDSG617PH-150□	15	100	0.196	1.16	0.97
EB-180□28N□□	SDSG617PH-180□	18	100	0.210	1.02	0.85
EB-220□28N□□	SDSG617PH-220□	22	100	0.290	0.96	0.80
EB-270□28N□□	SDSG617PH-270□	27	100	0.330	0.94	0.78
EB-330□28N□□	SDSG617PH-330□	33	100	0.385	0.78	0.65
EB-390□28N□□	SDSG617PH-390□	39	100	0.520	0.68	0.57
EB-470□28N□□	SDSG617PH-470□	47	100	0.595	0.65	0.54
EB-560□28N□□	SDSG617PH-560□	56	100	0.665	0.60	0.50
EB-680□28N□□	SDSG617PH-680□	68	100	0.840	0.52	0.43
EB-820□28N□□	SDSG617PH-820□	82	100	0.978	0.49	0.41
EB-101□28N□□	SDSG617PH-101□	100	100	1.200	0.43	0.36

- Tested at 25°C.
- Temperature rise : 40°C Typ. at Irms
- Inductance drop : 35% Typ. at Isat
- Operating temperature : -55°C to +105°C
- Storage temperature : -40°C to +85°C