

MBI Series



MBI series is designed with low RDC and ultra large current. Its molded magnetic shielded type is suitable for high-density mounting and ultra low buzz noise. Soldering conditions can be easily confirmed when mounting onto the board. This series also Provides customers with embossed carrier type packaging for automatic mounting machine.

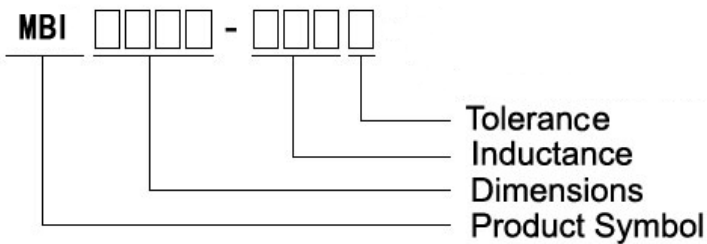
Features

- Shield construction
- Ultra low buzz noise, due to un-assembly structure
- 100% Lead free

Applications

- High density DC/DC converters
- POL convertes
- High current VRM/VRD for notebook / Server / desktop CPUs
- High speed charger

Product Identification



Shapes and Dimensions

FIG 1

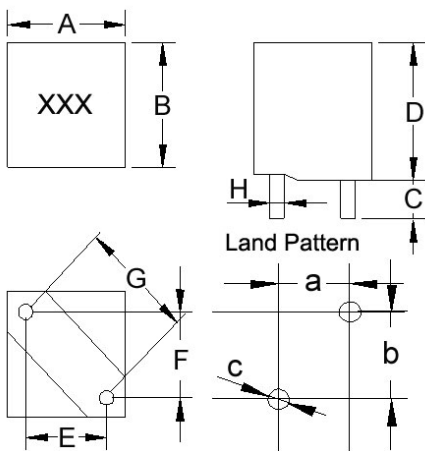


FIG 2

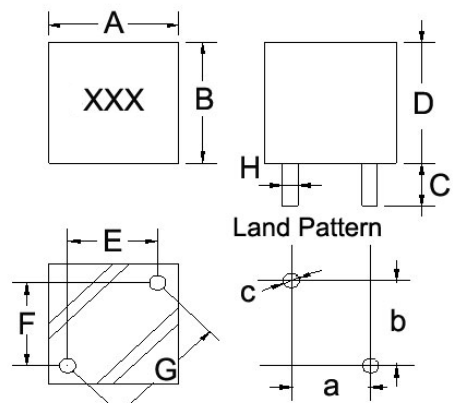
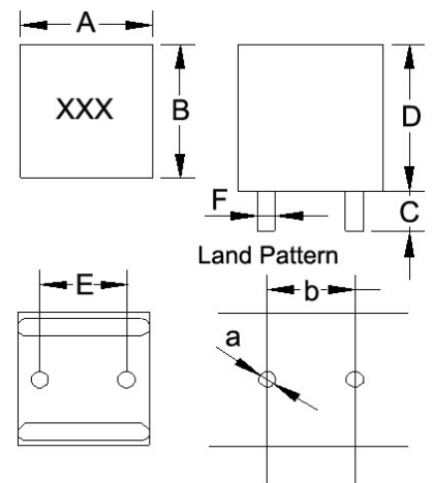


FIG 3



Dimensions in mm

TYPE	FIG	A	B	C	D	E	F	G	H	a	b	c
MBI0807-1R0M	3	8.5±0.5	8.5±0.5	3.4±0.5	7.5Max	5.0±0.5	0.8±0.1	-	-	1.3	5.5	-
MBI0808-R30M	1	8.5Max	8.5Max	3.4±0.5	9.0Max	4.7±0.5	4.7±0.5	6.6±0.5	1.1±0.1	5.2	5.2	1.6
MBI0808-1R0M	3	9.0Max	9.0Max	3.4±0.5	9.0Max	5.0±0.5	0.8±0.1	-	-	1.3	5.5	-
MBI0809-R56M	2	8.5Max	8.5Max	3.4±0.5	9.5Max	4.7±0.5	4.7±0.5	6.6 ^{+0.3} _{-0.5}	1.2±0.1	5.2	5.2	1.7
MBI0809-1R0M	1	8.0Max	8.0Max	3.4±0.5	9.5Max	4.2±0.5	4.2±0.5	5.9±0.5	1.1±0.1	4.7	4.7	1.6
MBI0809-2R2M	1	8.0Max	8.0Max	3.4±0.5	9.5Max	4.2±0.5	4.2±0.5	5.9±0.5	0.9±0.1	4.7	4.7	1.4
MBI0909-R25M	2	9.0Max	8.2Max	3.4±0.5	9.5Max	6.5±0.5	2.7±0.5	6.85±0.5	1.2±0.1	7.0	3.2	1.7
MBI1009-R68M	2	10.5Max	10.5Max	3.4±0.5	9.8Max	5.6±0.5	5.6±0.5	7.9±0.5	1.4±0.1	6.1	6.1	1.9
MBI1009-1R2M	2	10.5Max	10.5Max	3.4±0.5	9.8Max	5.6±0.5	5.6±0.5	7.9±0.5	1.3±0.1	6.1	6.1	1.8
DMI1108-R30M	1	11.5Max	9.5Max	3.4±0.5	8.5Max	6.6±0.5	4.2±0.5	7.8±0.5	1.5±0.1	7.1	4.7	2.0
MBI1108-R36M	1	11.7Max	9.7Max	3.5±0.5	8.8Max	6.6±0.5	4.2±0.5	7.8±0.5	1.4±0.1	7.1	4.7	1.9
MBI1108-R60M	1	11.7Max	11.7Max	3.5±0.5	8.5Max	6.3±0.5	5.7±0.5	8.5±0.5	1.5±0.1	6.8	6.2	2.0
MBI1108-1R8M	1	11.7Max	11.7Max	3.5±0.5	8.5Max	6.6±0.5	6.6±0.5	9.3±0.5	1.2±0.1	7.1	7.1	1.7
MBI1109-R30M	1	11.5±0.5	11.5±0.5	3.4±0.5	9.5±0.5	7.3±0.5	6.0±0.5	9.4±0.5	1.4±0.1	7.8	6.5	1.9
MBI1109-R56M	1	11.7Max	9.7Max	3.5±0.5	9.5Max	6.6±0.5	4.2±0.5	7.8±0.5	1.3±0.1	7.1	4.7	1.8
MBI1109-R68M	2	11.8Max	11.8Max	3.4±0.5	9.8Max	6.7±0.5	6.0±0.5	9 ^{+0.3} _{-0.5}	1.5±0.1	7.2	6.5	2.0
MBI1109-1R2M	2	11.5Max	11.5Max	3.4±0.5	9.8Max	6.7±0.5	6.0±0.5	9 ^{+0.3} _{-0.5}	1.5±0.1	7.2	6.5	2.0
MBI1109-1R5M	1	11.5±0.5	11.5±0.5	3.4±0.5	9.5±0.5	7.3±0.5	7.3±0.5	10.3±0.5	1.4±0.1	7.8	7.8	1.9
MBI1110-R60M	1	11.6Max	11.6Max	3.4±0.5	10Max	7.3±0.5	6.0±0.5	9.4±0.3	1.4±0.1	7.8	6.5	1.9
MBI1110-1R1M	1	11.6Max	11.6Max	3.2±0.5	10Max	6.7±0.5	6.0±0.5	9.0±0.5	1.4±0.1	7.2	6.5	1.9
MBI1208-R22M	2	12Max	12Max	3.4±0.5	8.0Max	7.3±0.5	6.0±0.5	9.4±0.5	1.4±0.1	7.8	6.5	1.9
MBI1208-R36M	1	11.5±0.5	11.5±0.5	3.5±0.5	7.4±0.2	5.7±0.5	6.3±0.5	8.5±0.5	1.5±0.1	6.2	6.8	2.0
MBI1208-R47M	2	12Max	12Max	3.4±0.5	8.0Max	7.3±0.5	6.0±0.5	9.4±0.5	1.4±0.1	7.8	6.5	1.9
MBI1208-R56M	2	12Max	12Max	3.4±0.5	8.0Max	7.3±0.5	6.0±0.5	9.4±0.5	1.4±0.1	7.8	6.5	1.9
MBI1209-R33M	2	12Max	12Max	3.4±0.5	9.0Max	7.3±0.5	6.0±0.5	9.4±0.5	1.4±0.1	7.8	6.5	1.9
MBI1209-R47M	2	12Max	12Max	3.4±0.5	9.0Max	7.3±0.5	6.0±0.5	9.4±0.5	1.4±0.1	7.8	6.5	1.9
MBI1209-R68M	2	12Max	12Max	3.4±0.5	9.0Max	7.3±0.5	6.0±0.5	9.4±0.5	1.4±0.1	7.8	6.5	1.9
MBI1209-1R0M	2	12Max	12Max	3.4±0.5	9.0Max	7.3±0.5	6.0±0.5	9.4±0.5	1.5±0.1	7.8	6.5	2.0
MBI1209-2R5M	1	12Max	12Max	3.4±0.5	9.0Max	6.6±0.5	6.6±0.5	9.3±0.5	1.2±0.1	7.1	7.1	1.7
MBI1210-R30M	1	12Max	12Max	3.4±0.5	10Max	7.3±0.5	6.0±0.5	9.4±0.5	1.4±0.1	7.8	6.5	1.9
MBI1210-R47M	1	12Max	12Max	3.4±0.5	10Max	7.3±0.5	6.0±0.5	9.4±0.5	1.4±0.1	7.8	6.5	1.9
MBI1210-1R8M	2	12Max	12Max	3.4±0.5	10.5Max	6.0±0.5	6.0±0.5	8.5±0.5	1.1±0.1	6.5	6.5	1.6
MBI1210-4R7M	1	12Max	12Max	3.4±0.5	12Max	7.0±0.5	7.0±0.5	10±0.5	1.1±0.1	7.5	7.5	1.6

Electrical Characteristics

Part Number	Inductance (μ H)	Tolerance (\pm %)	Test Frequency (KHz)	RDC (m Ω) Max	Isat (A) Typ	Irms (A) Typ
MBI0808-R30M	0.30	20	100/ 1V	1.0	35	32
MBI0808-1R0M	1.00	20	100/ 1V	4.0	12	16
MBI0809-R56M	0.56	20	100/ 1V	1.3	25	25
MBI0809-1R0M	1.00	20	100/ 1V	1.8	23	35
MBI0809-2R2M	2.20	20	100/ 1V	3.5	13	17
MBI0909-R25M	0.25	20	100/ 1V	0.8	28	35
MBI1108-R30M	0.30	20	100/ 1V	1.0	50	38
MBI1108-R36M	0.36	20	100/ 1V	0.7	50	43
MBI1108-1R8M	1.80	20	100/ 1V	3.0	24	24
DMI1109-R56M	0.56	20	100/ 1V	1.08	50	37
MBI1109-R68M	0.68	20	100/ 1V	1.2	40	35
MBI1110-R60M	0.60	20	100/ 1V	1.2	40	42
MBI1110-1R1M	1.10	20	100/ 1V	1.5	35	28
MBI1208-R22M	0.22	20	100/ 1V	0.6	75	38
MBI1208-R47M	0.47	20	100/ 1V	0.9	55	38
MBI1208-R56M	0.56	20	100/ 1V	0.9	45	38
MBI1209-R33M	0.33	20	100/ 1V	0.9	70	35
MBI1209-R47M	0.47	20	100/ 1V	0.9	50	38
MBI1209-R68M	0.68	20	100/ 1V	1.2	45	35
MBI1209-1R0M	1.00	20	100/ 1V	1.5	35	35
MBI1209-2R5M	2.50	20	100/ 1V	2.6	25	27
MBI1210-R47M	0.47	20	100/ 1V	1.0	50	30
MBI1210-1R8M	1.80	20	100/ 1V	3.3	29	22
MBI1210-4R7M	4.70	20	100/ 1V	6.0	12	17

- Customized Specifications are welcome .
- Isat for inductance drops 20% from its value without current
- Irms for a 40°C rise above 25°C ambient.
- Tested L: WK4237METER
RDC: HK502BC METER
Isat 、Irms : WK3260B/ 3265B METER

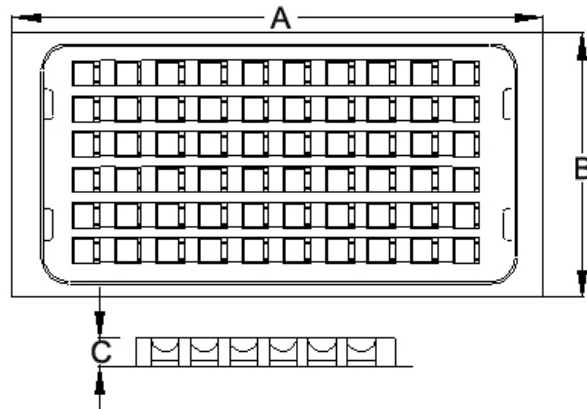
Electrical Characteristics

Part Number	Inductance (μ H)	Tolerance (\pm %)	Test Frequency (KHz)	RDC (m Ω) Max	Isat (A) Typ	Irms (A) Typ
MBI0807-1R0M	1.00	20	100/ 1V	4.0	28	15
MBI1009-R68M	0.68	20	100/ 1V	1.2	49	30
MBI1009-1R2M	1.20	20	100/ 1V	1.7	33	28
MBI1108-R60M	0.60	20	100/ 1V	1.0	40	35
MBI1109-R30M	0.30	20	100/ 1V	0.7	46	40
MBI1109-1R2M	1.20	20	100/ 1V	1.2	40	30
MBI1109-1R5M	1.50	20	100/ 1V	1.85	42	28
MBI1208-R36M	0.36	20	100/ 1V	0.8	60	40
MBI1210-R30M	0.30	20	100/ 1V	0.65	45	40

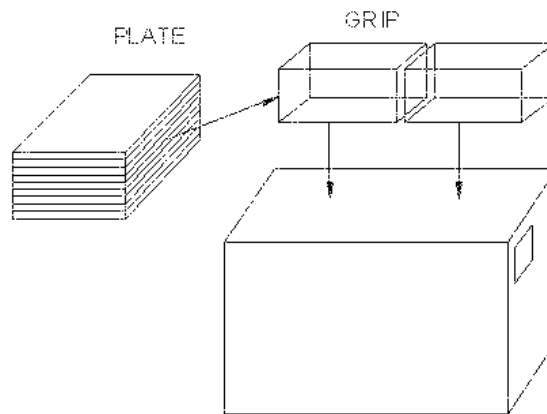
- ☒ Customized Specifications are welcome .
- ☒ Isat for inductance drops 30% from its value without current
- ☒ Irms for a 40°C rise above 25°C ambient.
- ☒ Tested L: WK4237METER
RDC: HK502BC METER
Isat 、Irms : WK3260B/ 3265B METER

Packaging

PLATE DIMENSIONS



PACKAGING QUANTITY



Dimensions in mm

TYPE	PLATE DIMENSIONS			QUANTITY				
	A	B	C	BULK	PLATE	PLATE/GRIP	GRIP	BOX
MBI0707	250	220	10	✓	100	10	2	2000
MBI0807	250	220	10	✓	100	10	2	2000
MBI0808	250	220	10	✓	100	10	2	2000
MBI0809	250	220	10	✓	100	10	2	2000
MBI0909	250	220	13.5	✓	100	8	2	1600
MBI1009	250	220	13.5	✓	100	8	2	1600
MBI1108	250	220	13.5	✓	100	8	2	1600
MBI1109	250	220	13.5	✓	100	8	2	1600
MBI1110	250	220	13.5	✓	100	8	2	1600
MBI1208	250	220	13.5	✓	100	8	2	1600
MBI1209	250	220	13.5	✓	100	8	2	1600
MBI1210	250	220	13.5	✓	100	8	2	1600
MBI1212	250	220	13.5	✓	100	8	2	1600
MBI1213	250	220	12	✓	50	8	2	800
MBI1214	250	220	12	✓	50	8	2	800
MBI1215	250	220	12	✓	50	8	2	800