

**TMBD Series ( Rev. 1.0 )**



**Features**

- \* RoHS compliant
- \* EMI suppressor for wide band/ narrow band/ high current
- \* Fit for power line & signal line circuit
- \* Monolithic structure for high reliability
- \* To help you go pass the CE/ FCC standard.
- \* Small size chips generate high impedance

**Product Identification**

TMBD    201209    -    601    N    □  
 1                    2                    3                    4                    5

1. Product Code
2. Size Code
3. Impedance: 600ohm
4. Tolerance: N=±25%
5. A- normal; H- high current; S- Super current; U- Ultra current

TMBD series covers a wide impedance characteristic. T impedance mainly comprises resistive part. Therefore, when this component is inserted in series with a noise conductor path, the noise content can be attenuated.

**Applications**

- \* RF circuit and module
- \* Tablet, notebook, computer and peripheral equipment
- \* DSC/ DVC/ LCD television/ set top box
- \* Mobile/ handheld device/ low profile device/ panel...
- \* Various electronic equipment

**Operating & Storage Condition**

- \* Operating Temp. : -40 to +85°C
- \* Storage Temp. : -40 to +85°C
- \* Storage Life Time : 12 Months @25°C , RH 65%

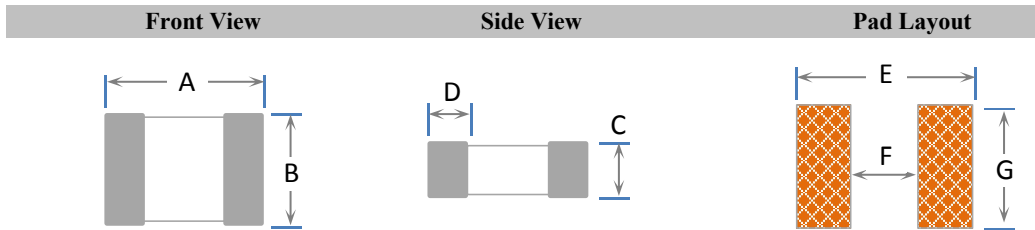
**Test Equipment**

- \* HP4284A, HP4287A, HP433B- L, IDC, Q, RDC
- \* HP8753D NETWORK ANALYZER- SRF

**Standard Atmospheric Conditions**

- \* Ambient Temp : 20+/-15°C
- \* Relative Humidity : 65+/-20%

**Dimension & Recommended PAD Layout: [ mm ]**



Size Code	A(±0.20)	B(±0.20)	C(±0.20)	D(±0.20)	E(ref.)	F(ref.)	G(ref.)
060303	0.60±0.03	0.30±0.03	0.30±0.03	0.15±0.05	0.70	0.30	0.40
100505	1.00±0.15	0.50±0.15	0.50±0.15	0.25±0.15	1.10	0.40	0.60
160808	1.60±0.15	0.80±0.15	0.80±0.15	0.40	1.80	0.60	1.00
201209	2.00	1.25	0.90	0.50	2.40	0.80	1.45
321609	3.20	1.60	0.90	0.50	3.60	1.00	1.85
321611	3.20	1.60	1.10	0.70	3.60	1.00	1.85
322513	3.20	2.50	1.30	0.80	3.60	1.10	2.80
451616	4.50	1.60	1.60	0.80	4.80	2.20	1.85
453215	4.50	3.20	1.50	0.80	4.80	2.20	3.60



## TMBD Series ( Rev. 1.0 )

## Electrical Characteristics- Normal

Part Number	Z - value (ohm) @100MHz	DCR (ohm)		Rated Current (mA) max.
		max.	typ.	
TMBD060303-121NA	120	0.450	0.360	200
TMBD060303-151NA	150	0.500	0.400	200
TMBD100505-070A	7 (tolerance: 0~11Ω)	0.100	0.080	300
TMBD100505-190A	19 (tolerance: 12~25Ω)	0.100	0.080	300
TMBD100505-260NA	26	0.150	0.120	300
TMBD100505-310NA	31	0.200	0.160	300
TMBD100505-360NA	36	0.200	0.160	300
TMBD100505-600NA	60	0.350	0.280	200
TMBD100505-101NA	100	0.500	0.400	150
TMBD100505-121NA	120	0.500	0.400	150
TMBD100505-151NA	150	0.550	0.440	150
TMBD100505-201NA	200	0.700	0.560	100
TMBD100505-301NA	300	0.800	0.640	100
TMBD100505-501NA	500	1.100	0.880	100
TMBD100505-601NA	600	1.300	1.040	100
TMBD100505-801NA	800	1.400	1.120	50
TMBD100505-102NA	1000	1.600	1.280	25
TMBD100505-122NA	1200	1.800	1.440	25
TMBD160808-070A	7 (tolerance: 0~11Ω)	0.100	0.080	800
TMBD160808-150A	15(tolerance: 9~21Ω)	0.100	0.080	800
TMBD160808-310NA	31	0.100	0.080	500
TMBD160808-700NA	70	0.200	0.160	300
TMBD160808-800NA	80	0.200	0.160	300
TMBD160808-101NA	100	0.200	0.160	300
TMBD160808-121NA	120	0.200	0.160	300
TMBD160808-151NA	150	0.300	0.240	300
TMBD160808-181NA	180	0.300	0.240	300
TMBD160808-221NA	220	0.300	0.240	300
TMBD160808-301NA	300	0.350	0.280	200
TMBD160808-501NA	500	0.500	0.400	200
TMBD160808-601NA	600	0.500	0.400	200
TMBD160808-801NA	800	0.600	0.480	200
TMBD160808-102NA	1000	0.600	0.480	200
TMBD160808-122NA	1200	0.850	0.680	100
TMBD160808-152NA	1500	0.850	0.680	50
TMBD160808-182NA	1800	1.100	0.880	50
TMBD160808-202NA	2000	1.100	0.880	50
TMBD160808-222NA	2200	1.200	0.960	50
TMBD160808-252NA	2500	1.300	1.040	50

\* Z-value tolerance: N=±25%



## TMBD Series ( Rev. 1.0 )

## Electrical Characteristics- Normal

Part Number	Z - value (ohm) @100MHz	DCR (ohm)		Rated Current (mA) max.
		max.	typ.	
TMBD201209-050A	5 (tolerance: 0~15Ω)	0.080	0.064	900
TMBD201209-110A	11(tolerance: 7~15Ω)	0.100	0.080	900
TMBD201209-260NA	26	0.100	0.080	900
TMBD201209-310NA	31	0.100	0.080	900
TMBD201209-500NA	50	0.150	0.120	900
TMBD201209-600NA	60	0.150	0.120	900
TMBD201209-800NA	80	0.180	0.144	500
TMBD201209-101NA	100	0.180	0.144	500
TMBD201209-121NA	120	0.200	0.160	500
TMBD201209-151NA	150	0.200	0.160	400
TMBD201209-181NA	180	0.200	0.160	400
TMBD201209-221NA	220	0.200	0.160	400
TMBD201209-301NA	300	0.250	0.200	400
TMBD201209-501NA	500	0.350	0.280	300
TMBD201209-601NA	600	0.350	0.280	300
TMBD201209-801NA	800	0.400	0.320	300
TMBD201209-102NA	1000	0.400	0.320	300
TMBD201209-122NA	1200	0.600	0.480	100
TMBD201209-152NA	1500	0.700	0.560	100
TMBD201209-202NA	2000	0.900	0.720	50
TMBD201209-222NA	2200	1.000	0.800	50
TMBD201209-252NA	2500 @50MHz	1.200	0.960	50
TMBD201209-272NA	2700 @50MHz	1.400	1.120	50
TMBD321609-050NA	7 (tolerance: 0~11Ω)	0.100	0.080	1000
TMBD321609-110NA	9 (tolerance: 5~13Ω)	0.100	0.080	1000
TMBD321609-260NA	11 (tolerance: 7~15Ω)	0.100	0.080	1000
TMBD321609-150A	15 (tolerance: 9~21Ω)	0.100	0.080	1000
TMBD321609-190A	19 (tolerance: 12~25Ω)	0.100	0.080	1000
TMBD321609-260NA	26	0.100	0.080	1000
TMBD321609-310NA	31	0.100	0.080	1000
TMBD321609-600NA	60	0.150	0.120	1000
TMBD321609-700NA	70	0.150	0.120	1000
TMBD321609-800NA	80	0.150	0.120	1000
TMBD321609-101NA	100	0.150	0.120	1000
TMBD321609-121NA	120	0.150	0.120	1000
TMBD321609-151NA	150	0.200	0.160	800

\* Z-value tolerance: N=±25%



## TMBD Series ( Rev. 1.0 )

## Electrical Characteristics- Normal

Part Number	Z - value (ohm) @100MHz	DCR (ohm)		Rated Current (mA) max.
		max.	typ.	
TMBD321609-181NA	180	0.200	0.160	800
TMBD321609-221NA	220	0.200	0.160	800
TMBD321609-301NA	300	0.200	0.160	800
TMBD321609-501NA	500	0.300	0.240	600
TMBD321609-601NA	600	0.300	0.240	600
TMBD321609-801NA	800	0.350	0.280	400
TMBD321609-102NA	1000	0.350	0.280	400
TMBD321609-122NA	1200	0.600	0.480	100
TMBD321609-152NA	1500 @50MHz	0.800	0.640	100
TMBD321609-182NA	1800 @50MHz	0.900	0.720	80
TMBD321609-202NA	2000 @50MHz	1.000	0.800	50
TMBD321609-252NA	2500 @50MHz	1.200	0.960	50
TMBD321609-302NA	3000 @50MHz	1.500	1.200	30
TMBD321611-110A	11 (tolerance: 7~15Ω)	0.050	0.040	600
TMBD321611-190A	19 (tolerance: 12~25Ω)	0.050	0.040	600
TMBD321611-260NA	26	0.050	0.040	600
TMBD321611-300NA	30	0.050	0.040	600
TMBD321611-310NA	31	0.050	0.040	600
TMBD321611-320NA	32	0.050	0.040	600
TMBD321611-470NA	47	0.100	0.080	500
TMBD321611-500NA	50	0.100	0.080	500
TMBD321611-600NA	60	0.100	0.080	500
TMBD321611-700NA	70	0.100	0.080	500
TMBD321611-800NA	80	0.150	0.120	500
TMBD321611-900NA	90	0.150	0.120	500
TMBD321611-101NA	100	0.150	0.120	500
TMBD321611-121NA	120	0.150	0.120	500
TMBD321611-151NA	150	0.150	0.120	500
TMBD321611-201NA	200	0.200	0.160	400
TMBD321611-221NA	220	0.200	0.160	400
TMBD321611-301NA	300	0.200	0.160	400
TMBD321611-401NA	400	0.200	0.160	400
TMBD321611-471NA	470	0.200	0.160	400
TMBD321611-501NA	500	0.200	0.160	400
TMBD321611-601NA	600	0.300	0.240	400
TMBD321611-102NA	1000 @50MHz	0.400	0.320	200
TMBD321611-122NA	1200 @50MHz	0.400	0.320	200
TMBD321611-152NA	1500 @50MHz	0.450	0.360	200
TMBD321611-202NA	2000 @50MHz	0.600	0.480	200
TMBD321611-272NA	2700 @50MHz	0.600	0.480	200

\* Z-value tolerance: N=±25%



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## Electrical Characteristics- Normal

Part Number	Z - value (ohm) @100MHz	DCR (ohm)		Rated Current (mA) max.
		max.	typ.	
TMBD322513-100A	10 (tolerance: 7~15Ω)	0.100	0.080	1000
TMBD322513-110A	11 (tolerance: 7~15Ω)	0.100	0.080	1000
TMBD322513-190A	19 (tolerance: 12~25Ω)	0.100	0.080	1000
TMBD322513-260NA	26	0.100	0.080	1000
TMBD322513-310NA	31	0.100	0.080	1000
TMBD322513-600NA	60	0.150	0.120	1000
TMBD322513-700NA	70	0.200	0.160	1000
TMBD322513-800NA	80	0.200	0.160	400
TMBD322513-900NA	90	0.200	0.160	400
TMBD322513-101NA	100	0.200	0.160	400
TMBD322513-121NA	120	0.200	0.160	400
TMBD322513-151NA	150	0.300	0.240	400
TMBD322513-221NA	220	0.400	0.320	400
TMBD322513-301NA	300	0.400	0.320	400
TMBD322513-501NA	500	0.400	0.320	300
TMBD322513-601NA	600	0.400	0.320	300
TMBD322513-801NA	800	0.400	0.320	300
TMBD322513-102NA	1000	0.400	0.320	300
TMBD451616-190A	19 (tolerance: 12~25Ω)	0.100	0.080	1000
TMBD451616-260NA	26	0.100	0.080	1000
TMBD451616-310NA	31	0.150	0.120	1000
TMBD451616-600NA	60	0.200	0.160	1000
TMBD451616-750NA	75	0.300	0.240	1000
TMBD451616-800NA	80	0.300	0.240	1000
TMBD451616-900NA	90	0.350	0.280	1000
TMBD451616-101NA	100	0.400	0.320	500
TMBD451616-121NA	120	0.400	0.320	500
TMBD451616-151NA	150	0.400	0.320	500
TMBD451616-221NA	220	0.450	0.360	500
TMBD451616-301NA	300	0.450	0.360	500
TMBD451616-501NA	500	0.500	0.400	200
TMBD451616-601NA	600	0.500	0.400	200
TMBD451616-801NA	800	0.550	0.440	200
TMBD453215-300NA	30	0.150	0.120	1000
TMBD453215-310NA	31	0.150	0.120	1000
TMBD453215-380NA	38	0.150	0.120	1000
TMBD453215-600NA	60	0.200	0.160	1000
TMBD453215-700NA	70	0.200	0.160	1000
TMBD453215-800NA	80	0.200	0.160	1000
TMBD453215-900NA	90	0.200	0.160	500
TMBD453215-101NA	100	0.200	0.160	500
TMBD453215-121NA	120	0.250	0.200	500
TMBD453215-151NA	150	0.250	0.200	500
TMBD453215-221NA	220	0.300	0.240	300
TMBD453215-301NA	300	0.300	0.240	300
TMBD453215-501NA	500	0.400	0.320	200
TMBD453215-601NA	600	0.400	0.320	200

\* Z-value tolerance: N=±25%



**TMBD Series ( Rev. 1.0 )**

**Electrical Characteristics- High Current**

Part Number	Z - value (ohm) @100MHz	DCR (ohm)		Rated Current (mA) max.
		max.	typ.	
TMBD100505-050H	5 (tolerance: 0~15Ω)	0.040	0.032	800
TMBD100505-070H	7 (tolerance: 0~11Ω)	0.040	0.032	800
TMBD100505-090H	9 (tolerance: 5~13Ω)	0.040	0.032	800
TMBD100505-110H	11 (tolerance: 7~15Ω)	0.040	0.032	800
TMBD100505-150H	15 (tolerance: 9~21Ω)	0.040	0.032	800
TMBD100505-190H	19 (tolerance: 12~25Ω)	0.060	0.048	700
TMBD100505-260NH	26	0.060	0.048	700
TMBD100505-310NH	31	0.080	0.064	700
TMBD100505-360NH	36	0.150	0.120	600
TMBD100505-500NH	50	0.150	0.120	600
TMBD100505-600NH	60	0.150	0.120	600
TMBD100505-700NH	70	0.200	0.160	450
TMBD100505-750NH	75	0.200	0.160	450
TMBD100505-800NH	80	0.200	0.160	450
TMBD100505-101NH	100	0.200	0.160	450
TMBD100505-121NH	120	0.250	0.200	450
TMBD100505-151NH	150	0.250	0.200	450
TMBD100505-181NH	180	0.400	0.320	300
TMBD100505-221NH	220	0.400	0.320	300
TMBD100505-301NH	300	0.500	0.400	300
TMBD100505-501NH	500	0.650	0.520	200
TMBD100505-601NH	600	0.700	0.560	200
TMBD100505-801NH	800	0.900	0.720	200
TMBD100505-102NH	1000	1.000	0.800	200
TMBD100505-122NH	1200	1.000	0.800	200
TMBD160808-050H	5 (tolerance: 0~15Ω)	0.080	0.064	1000
TMBD160808-070H	7 (tolerance: 0~11Ω)	0.080	0.064	1000
TMBD160808-090H	9 (tolerance: 5~13Ω)	0.080	0.064	1000
TMBD160808-110H	11 (tolerance: 7~15Ω)	0.080	0.064	1000
TMBD160808-150H	15 (tolerance: 9~21Ω)	0.080	0.064	1000
TMBD160808-190H	19 (tolerance: 12~25Ω)	0.080	0.064	1000
TMBD160808-260NH	26	0.080	0.064	1000
TMBD160808-300NH	30	0.080	0.064	1000
TMBD160808-310NH	31	0.080	0.064	1000
TMBD160808-500NH	50	0.120	0.096	1000
TMBD160808-600NH	60	0.120	0.096	1000
TMBD160808-700NH	70	0.150	0.120	1000
TMBD160808-800NH	80	0.150	0.120	1000
TMBD160808-101NH	100	0.150	0.120	1000
TMBD160808-121NH	120	0.150	0.120	1000
TMBD160808-151NH	150	0.200	0.160	1000
TMBD160808-181NH	180	0.200	0.160	1000
TMBD160808-221NH	220	0.200	0.160	1000
TMBD160808-301NH	300	0.250	0.200	1000
TMBD160808-501NH	500	0.300	0.240	1000
TMBD160808-601NH	600	0.300	0.240	1000
TMBD160808-801NH	800	0.550	0.440	500
TMBD160808-102NH	1000	0.550	0.440	500
TMBD160808-122NH	1200	0.650	0.520	500
TMBD160808-152NH	1500	0.750	0.600	400
TMBD160808-182NH	1800	0.750	0.600	400
TMBD160808-202NH	2000	0.900	0.720	400
TMBD160808-252NH	2500	0.900	0.720	400

\* Z-value tolerance: N=±25%



**TMBD Series ( Rev. 1.0 )**

**Electrical Characteristics- High Current**

Part Number	Z - value (ohm) @100MHz	DCR (ohm)		Rated Current (mA) max.
		max.	typ.	
TMBD201209-050H	5 (tolerance: 0~15Ω)	0.030	0.024	3000
TMBD201209-070H	7 (tolerance: 0~11Ω)	0.030	0.024	3000
TMBD201209-090H	9 (tolerance: 5~13Ω)	0.030	0.024	3000
TMBD201209-110H	11 (tolerance: 7~15Ω)	0.030	0.024	3000
TMBD201209-150H	15 (tolerance: 9~21Ω)	0.030	0.024	3000
TMBD201209-190H	19 (tolerance: 12~25Ω)	0.030	0.024	3000
TMBD201209-300NH	30	0.050	0.040	3000
TMBD201209-310NH	31	0.050	0.040	3000
TMBD201209-360NH	36	0.060	0.048	3000
TMBD201209-600NH	60	0.060	0.048	3000
TMBD201209-700NH	70	0.080	0.064	2500
TMBD201209-800NH	80	0.080	0.064	2500
TMBD201209-101NH	100	0.100	0.080	2500
TMBD201209-121NH	120	0.100	0.080	2000
TMBD201209-151NH	150	0.100	0.080	2000
TMBD201209-181NH	180	0.150	0.120	2000
TMBD201209-201NH	200	0.150	0.120	2000
TMBD201209-221NH	220	0.150	0.120	2000
TMBD201209-301NH	300	0.200	0.160	2000
TMBD201209-501NH	500	0.250	0.200	1500
TMBD201209-601NH	600	0.250	0.200	1500
TMBD201209-801NH	800	0.300	0.240	800
TMBD201209-102NH	1000	0.300	0.240	800
TMBD201209-122NH	1200	0.450	0.360	500
TMBD201209-152NH	1500	0.500	0.400	300
TMBD201209-202NH	2000	0.500	0.400	300
TMBD201209-222NH	2200	0.600	0.480	100
TMBD201209-252NH	2500 @50MHz	0.600	0.480	100
TMBD321609-050H	5 (tolerance: 0~15Ω)	0.040	0.032	4000
TMBD321609-070H	7 (tolerance: 0~11Ω)	0.040	0.032	4000
TMBD321609-090H	9 (tolerance: 5~13Ω)	0.050	0.040	4000
TMBD321609-110H	11 (tolerance: 7~15Ω)	0.050	0.040	4000
TMBD321609-150H	15 (tolerance: 9~21Ω)	0.050	0.040	3000
TMBD321609-190H	19 (tolerance: 12~25Ω)	0.050	0.040	3000
TMBD321609-260NH	26	0.050	0.040	3000
TMBD321609-280NH	28	0.070	0.056	3000
TMBD321609-300NH	30	0.070	0.056	3000
TMBD321609-310NH	31	0.070	0.056	3000
TMBD321609-500NH	50	0.070	0.056	3000
TMBD321609-600NH	60	0.070	0.056	3000
TMBD321609-700NH	70	0.070	0.056	3000
TMBD321609-800NH	80	0.070	0.056	3000
TMBD321609-101NH	100	0.070	0.056	3000
TMBD321609-121NH	120	0.070	0.056	3000
TMBD321609-151NH	150	0.120	0.096	2500
TMBD321609-181NH	180	0.120	0.096	2500
TMBD321609-221NH	220	0.120	0.096	2500
TMBD321609-301NH	300	0.150	0.120	2000
TMBD321609-501NH	500	0.200	0.160	2000
TMBD321609-601NH	600	0.200	0.160	2000
TMBD321609-801NH	800	0.250	0.200	2000
TMBD321609-102NH	1000	0.250	0.200	2000
TMBD321609-122NH	1200	0.350	0.280	1000
TMBD321609-152NH	1500 @50MHz	0.450	0.360	500
TMBD321609-182NH	1800 @50MHz	0.600	0.480	500
TMBD321609-202NH	2000 @50MHz	0.700	0.560	300
TMBD321609-252NH	2500 @50MHz	0.900	0.720	200
TMBD321609-302NH	3000 @50MHz	0.900	0.720	200

\* Z-value tolerance: N=±25%



## TMBD Series (Rev. 1.0)

## Electrical Characteristics- High Current

Part Number	Z - value (ohm) @100MHz	DCR (ohm)		Rated Current (mA) max.
		max.	typ.	
TMBD321611-190NH	19	0.030	0.024	3000
TMBD321611-310NH	31	0.030	0.024	3000
TMBD321611-520NH	52	0.030	0.024	3000
TMBD321611-700NH	70	0.040	0.032	3000
TMBD321611-101NH	100	0.040	0.032	3000
TMBD321611-151NH	150	0.050	0.040	3000
TMBD321611-301NH	300	0.060	0.048	3000
TMBD321611-501NH	500	0.070	0.056	2500
TMBD321611-601NH	600	0.080	0.064	2000
TMBD321611-102NH	1000	0.300	0.240	1000
TMBD322513-110H	11 (tolerance: 7~15Ω)	0.050	0.040	5000
TMBD322513-190H	19 (tolerance: 12~25Ω)	0.050	0.040	5000
TMBD322513-260NH	26	0.050	0.040	5000
TMBD322513-310NH	31	0.050	0.040	5000
TMBD322513-600NH	60	0.060	0.048	4000
TMBD322513-700NH	70	0.080	0.064	4000
TMBD322513-800NH	80	0.080	0.064	3000
TMBD322513-900NH	90	0.080	0.064	3000
TMBD322513-121NH	120	0.100	0.080	3000
TMBD322513-151NH	150	0.100	0.080	3000
TMBD322513-221NH	220	0.150	0.120	3000
TMBD322513-301NH	300	0.150	0.120	3000
TMBD322513-501NH	500	0.150	0.120	2000
TMBD322513-601NH	600	0.200	0.160	2000
TMBD322513-801NH	800	0.250	0.200	2000
TMBD322513-102NH	1000	0.300	0.240	2000
TMBD451616-190H	19 (tolerance: 12~25Ω)	0.015	0.012	6000
TMBD451616-260NH	26	0.050	0.040	3000
TMBD451616-310NH	31	0.050	0.040	3000
TMBD451616-600NH	60	0.060	0.048	3000
TMBD451616-750NH	75	0.060	0.048	3000
TMBD451616-800NH	80	0.080	0.064	3000
TMBD451616-900NH	90	0.100	0.080	3000
TMBD451616-121NH	120	0.100	0.080	3000
TMBD451616-151NH	150	0.100	0.080	3000
TMBD451616-221NH	220	0.150	0.120	2000
TMBD451616-301NH	300	0.200	0.160	2000
TMBD451616-501NH	500	0.250	0.200	1000
TMBD451616-601NH	600	0.300	0.240	1000

\* Z-value tolerance: N=±25%





## TMBD Series ( Rev. 1.0 )

## Electrical Characteristics- High Current

Part Number	Z - value (ohm) @100MHz	DCR (ohm)		Rated Current (mA) max.
		max.	typ.	
TMBD453215-300NH	30	0.060	0.048	5000
TMBD453215-310NH	31	0.060	0.048	5000
TMBD453215-380NH	38	0.060	0.048	5000
TMBD453215-400NH	40	0.060	0.048	4000
TMBD453215-500NH	50	0.060	0.048	4000
TMBD453215-600NH	60	0.060	0.048	4000
TMBD453215-700NH	70	0.060	0.048	4000
TMBD453215-800NH	80	0.080	0.064	4000
TMBD453215-900NH	90	0.080	0.064	4000
TMBD453215-101NH	100	0.080	0.064	4000
TMBD453215-121NH	120	0.080	0.064	4000
TMBD453215-151NH	150	0.100	0.080	3000
TMBD453215-181NH	180	0.120	0.096	3000
TMBD453215-201NH	200	0.120	0.096	3000
TMBD453215-221NH	220	0.150	0.120	2000
TMBD453215-301NH	300	0.150	0.120	2000
TMBD453215-401NH	400	0.200	0.160	1000
TMBD453215-501NH	500	0.200	0.160	1000
TMBD453215-601NH	600	0.250	0.200	1000

\* Z-value tolerance: N=±25%



## TMBD Series ( Rev. 1.0 )

## Electrical Characteristics- Super Current

Part Number	Z - value (ohm) @100MHz	DCR (ohm)		Rated Current (mA) max.
		max.	typ.	
TMBD100505-050S	5 (tolerance: 0~15Ω)	0.050	0.040	1800
TMBD100505-070S	7 (tolerance: 0~11Ω)	0.050	0.040	1800
TMBD100505-090S	9 (tolerance: 5~13Ω)	0.050	0.040	1800
TMBD100505-110S	11 (tolerance: 7~15Ω)	0.050	0.040	1800
TMBD100505-150S	15 (tolerance: 9~21Ω)	0.050	0.040	1800
TMBD100505-190S	19 (tolerance: 12~25Ω)	0.060	0.048	1500
TMBD100505-300NS	30	0.080	0.064	1300
TMBD100505-600NS	60	0.100	0.080	1000
TMBD100505-700NS	70	0.150	0.120	800
TMBD100505-800NS	80	0.150	0.120	800
TMBD100505-101NS	100	0.150	0.120	800
TMBD100505-121NS	120	0.150	0.120	800
TMBD100505-151NS	150	0.200	0.160	700
TMBD100505-201NS	200	0.250	0.200	700
TMBD100505-221NS	220	0.300	0.240	600
TMBD100505-301NS	300	0.300	0.240	600
TMBD100505-501NS	500	0.400	0.320	500
TMBD100505-601NS	600	0.500	0.400	500
TMBD100505-801NS	800	0.650	0.520	300
TMBD100505-102NS	1000	0.650	0.520	300
TMBD160808-050S	5 (tolerance: 0~15Ω)	0.020	0.016	6000
TMBD160808-070S	7 (tolerance: 0~11Ω)	0.020	0.016	6000
TMBD160808-090S	9 (tolerance: 5~13Ω)	0.020	0.016	6000
TMBD160808-110S	11 (tolerance: 7~15Ω)	0.030	0.024	5000
TMBD160808-150S	15 (tolerance: 9~21Ω)	0.030	0.024	5000
TMBD160808-190S	19 (tolerance: 12~25Ω)	0.030	0.024	5000
TMBD160808-300NS	30	0.030	0.024	4000
TMBD160808-500NS	50	0.040	0.032	3000
TMBD160808-600NS	60	0.040	0.032	3000
TMBD160808-700NS	70	0.060	0.048	2500
TMBD160808-800NS	80	0.060	0.048	2500
TMBD160808-101NS	100	0.060	0.048	2500
TMBD160808-121NS	120	0.065	0.052	2000
TMBD160808-151NS	150	0.090	0.072	1500
TMBD160808-181NS	180	0.090	0.072	1500
TMBD160808-221NS	220	0.120	0.096	1500
TMBD160808-301NS	300	0.180	0.144	1500
TMBD160808-501NS	500	0.180	0.144	1200
TMBD160808-601NS	600	0.180	0.144	1200
TMBD160808-801NS	800	0.300	0.240	700
TMBD160808-102NS	1000	0.400	0.320	600

\* Z-value tolerance: N=±25%



## TMBD Series ( Rev. 1.0 )

## Electrical Characteristics- Super Current

Part Number	Z - value (ohm) @100MHz	DCR (ohm)		Rated Current (mA) max.
		max.	typ.	
TMBD201209-050S	5 (tolerance: 0~15Ω)	0.010	0.008	6000
TMBD201209-070S	7 (tolerance: 0~11Ω)	0.010	0.008	6000
TMBD201209-090S	9 (tolerance: 5~13Ω)	0.010	0.008	6000
TMBD201209-110S	11 (tolerance: 7~15Ω)	0.010	0.008	6000
TMBD201209-150S	15 (tolerance: 9~21Ω)	0.010	0.008	6000
TMBD201209-190S	19 (tolerance: 12~25Ω)	0.010	0.008	6000
TMBD201209-300NS	30	0.010	0.008	6000
TMBD201209-500NS	50	0.040	0.032	3500
TMBD201209-600NS	60	0.040	0.032	3500
TMBD201209-700NS	70	0.040	0.032	3000
TMBD201209-800NS	80	0.040	0.032	3000
TMBD201209-101NS	100	0.050	0.040	3000
TMBD201209-121NS	120	0.050	0.040	3000
TMBD201209-151NS	150	0.080	0.064	2500
TMBD201209-181NS	180	0.080	0.064	2500
TMBD201209-221NS	220	0.080	0.064	2500
TMBD201209-301NS	300	0.080	0.064	2500
TMBD201209-501NS	500	0.100	0.080	2000
TMBD201209-601NS	600	0.100	0.080	2000
TMBD201209-102NS	1000	0.120	0.096	1500
TMBD321609-050S	5 (tolerance: 0~15Ω)	0.010	0.008	6000
TMBD321609-070S	7 (tolerance: 0~11Ω)	0.010	0.008	6000
TMBD321609-090S	9 (tolerance: 5~13Ω)	0.015	0.012	6000
TMBD321609-110S	11 (tolerance: 7~15Ω)	0.015	0.012	6000
TMBD321609-150S	15 (tolerance: 9~21Ω)	0.015	0.012	6000
TMBD321609-190S	19 (tolerance: 12~25Ω)	0.015	0.012	6000
TMBD321609-260NS	26	0.015	0.012	6000
TMBD321609-280NS	28	0.015	0.012	6000
TMBD321609-300NS	30	0.015	0.012	6000
TMBD321609-310NS	31	0.025	0.020	4000
TMBD321609-500NS	50	0.025	0.020	4000
TMBD321609-600NS	60	0.025	0.020	4000
TMBD321609-700NS	70	0.035	0.028	4000
TMBD321609-800NS	80	0.035	0.028	4000

\* Z-value tolerance: N=±25%



**TMBD Series ( Rev. 1.0 )**

**Electrical Characteristics- Super Current**

Part Number	Z - value (ohm) @100MHz	DCR (ohm)		Rated Current (mA) max.
		max.	typ.	
TMBD321609-101NS	100	0.035	0.028	4000
TMBD321609-121NS	120	0.035	0.028	4000
TMBD321609-151NS	150	0.045	0.036	3000
TMBD321609-181NS	180	0.055	0.044	3000
TMBD321609-221NS	220	0.055	0.044	3000
TMBD321609-301NS	300	0.065	0.052	2500
TMBD321609-501NS	500	0.085	0.068	2500
TMBD321609-601NS	600	0.100	0.080	2000
TMBD321609-801NS	800	0.110	0.088	2000
TMBD321609-102NS	1000	0.120	0.096	2000
TMBD451616-190S	19 (tolerance: 12~25Ω)	0.010	0.008	6000
TMBD451616-260NS	26	0.015	0.012	6000
TMBD451616-310NS	31	0.015	0.012	6000
TMBD451616-600NS	60	0.015	0.012	6000
TMBD451616-750NS	75	0.020	0.016	4000
TMBD451616-800NS	80	0.025	0.020	3000
TMBD453215-300NS	30	0.010	0.008	6000
TMBD453215-310NS	31	0.010	0.008	6000
TMBD453215-380NS	38	0.010	0.008	6000
TMBD453215-400NS	40	0.010	0.008	6000
TMBD453215-500NS	50	0.010	0.008	6000
TMBD453215-600NS	60	0.010	0.008	6000
TMBD453215-700NS	70	0.010	0.008	6000
TMBD453215-101NS	100	0.020	0.016	6000
TMBD453215-181NS	180	0.020	0.016	6000
TMBD453215-221NS	220	0.020	0.016	6000

\* Z-value tolerance: N=±25%



**TMBD Series ( Rev. 1.0 )**

**Electrical Characteristics- Ultra Current**

Part Number	Z - value (ohm) @100MHz	DCR (ohm)		Rated Current (mA) max.
		max.	typ.	
TMBD160808-260NU	26	0.007	0.006	6000
TMBD201209-070NU	7	0.008	0.006	6000
TMBD201209-110NU	11	0.008	0.006	6000
TMBD201209-170NU	17	0.008	0.006	6000
TMBD201209-300NU	30	0.008	0.006	6000
TMBD201209-390NU	39	0.008	0.006	6000
TMBD201209-600NU	60	0.020	0.016	6000
TMBD201209-800NU	80	0.020	0.016	6000
TMBD201209-121NU	120	0.025	0.020	6000
TMBD321611-310NU	31	0.006	0.005	6000
TMBD321611-520NU	52	0.008	0.006	6000
TMBD321611-800NU	80	0.020	0.016	4000
TMBD321611-121NU	120	0.025	0.020	5000
TMBD322513-520NU	52	0.008	0.006	6000
TMBD322513-600NU	60	0.008	0.006	6000
TMBD451616-600NU	60	0.008	0.006	6000
TMBD453215-700NU	70	0.006	0.005	9000
TMBD453215-800NU	80	0.006	0.005	9000
TMBD453215-900NU	90	0.006	0.005	9000
TMBD453215-121NU	120	0.006	0.005	9000

\* Z-value tolerance: N=±25%