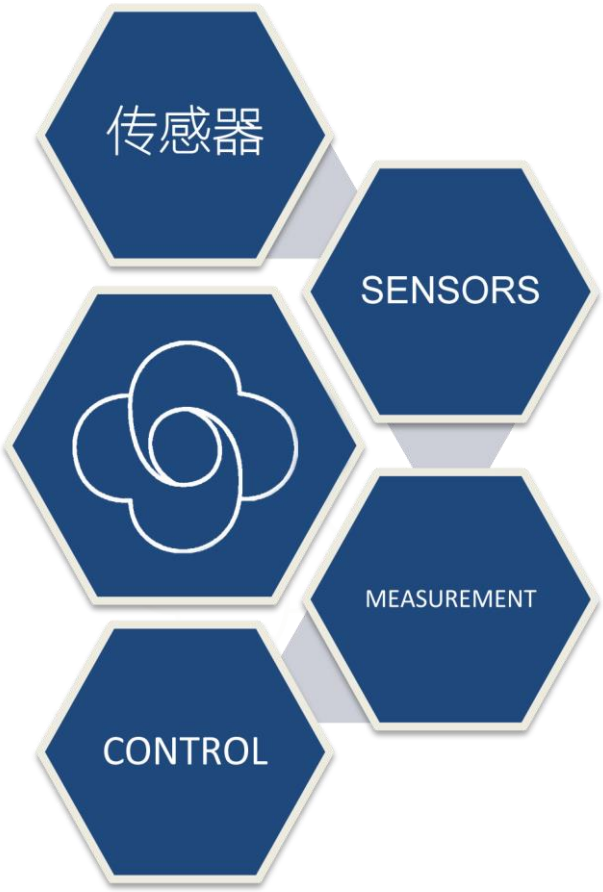


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SPECIFICATION

1、Scope

This specification deals with shape,dimensions,characteristics,inspection standard etc.

2、Specifications

2.1 Item: Thermistor,No.: MEB-833F3950U

2.2 Characteristics

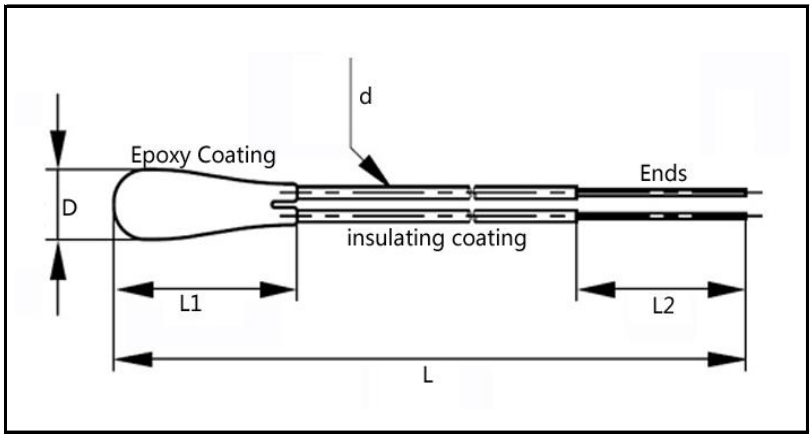
Item	Test Condition	Min.	Mid.	Max.	Unit
Resistance at 25℃	25℃±0.005℃	82.17	83	83.83	KΩ
B value	B25/50	3910	3950	3989	K
Insulation resistance	DC100v	100	/	/	MΩ
Thermal time constant	In still air	/	/	3	S
Thermal dissipation constant	In still air	0.7	/	/	mW/℃
Maximum power rating	25℃	/	/	50	mW/℃
Operating temperature range	/	-30	/	110	℃

2.3、Material of parts

Head: Epoxy resin encapsulated

Leads : enameled wire

Dimensions-mm		
D ±0.1	0.8 ~ 1.6	TBD
L 1 ±0.1	2 ~ 4	TBD
L ±1	25 ~ 120	TBD
L 2 ±1	3	TBD
d±0.01	0.1 ~ 0.3	TBD



3、Reliability

	Item	Specification	Method of Examination
1	High temp. storage	*△R25/R25 < ±1%	1000Hours under 100℃
2	Low temp. storage		1000Hours under -30℃
3	Temperature & humidity		1000hours under 60℃95%RH
4	Thermal shock	*△R25/R25 < ±1%	100 times cycling test: -30℃ 10mins - Room Temperature(RT) 5 mins-100℃ 10mins-RT 5mins
5	Vibration	No visible damage	With 1.5mm amplitude from 50Hz to 500Hz The thermistor is vibrated at X and Y with 6 mins respectively
6	Pulling		With 2.0N pulling along the leads, holding for 60s
7	Fall down	*△R25/R25 < ±1%	Falling down from 1M onto wooden board for 10 times

RESISTANCE-TEMPERATURE CHARACTERISTICS

R_{25} : 83.0000 Kohms ± 1.0% **$B_{25/50}$: 3950°K**

T(℃)	R (KΩ)	T(℃)	R (KΩ)	T(℃)	R (KΩ)	T(℃)	R (KΩ)	T(℃)	R (KΩ)
-66	---	-30	---	6	200.3580	42	40.7330	78	10.9400
-65	---	-29	---	7	190.7950	43	39.1410	79	10.5810
-64	---	-28	---	8	181.7420	44	37.6190	80	10.2360
-63	---	-27	---	9	173.1700	45	36.1640	81	9.9040
-62	---	-26	---	10	165.0500	46	34.7730	82	9.5840
-61	---	-25	---	11	157.3570	47	33.4410	83	9.2750
-60	---	-24	---	12	150.0640	48	32.1680	84	8.9780
-59	---	-23	---	13	143.1500	49	30.9490	85	8.6920
-58	---	-22	---	14	136.5920	50	29.7820	86	8.4160
-57	---	-21	---	15	130.3710	51	28.6650	87	8.1500
-56	---	-20	801.6300	16	124.4670	52	27.5950	88	7.8940
-55	---	-19	756.5890	17	118.8630	53	26.5700	89	7.6470
-54	---	-18	714.3600	18	113.5420	54	25.5880	90	7.4080
-53	---	-17	674.7480	19	108.4870	55	24.6480	91	7.1790
-52	---	-16	637.5780	20	103.6850	56	23.7460	92	6.9570
-51	---	-15	602.6840	21	99.1210	57	22.8820	93	6.7430
-50	---	-14	569.9140	22	94.7830	58	22.0530	94	6.5360
-49	---	-13	539.1250	23	90.6570	59	21.2580	95	6.3370
-48	---	-12	510.1870	24	86.7330	60	20.4950	96	6.1450
-47	---	-11	482.9770	25	83.0000	61	19.7640	97	5.9590
-46	---	-10	457.3830	26	79.4470	62	19.0620	98	5.7800
-45	---	-9	433.2980	27	76.0650	63	18.3880	99	5.6070
-44	---	-8	410.6260	28	72.8450	64	17.7410	100	5.4390
-43	---	-7	389.2760	29	69.7770	65	17.1200	101	5.2780
-42	---	-6	369.1620	30	66.8550	66	16.5240	102	5.1220
-41	---	-5	350.2060	31	64.0710	67	15.9510	103	4.9710
-40	---	-4	332.3360	32	61.4170	68	15.4000	104	4.8250
-39	---	-3	315.4820	33	58.8860	69	14.8720	105	4.6850
-38	---	-2	299.5820	34	56.4730	70	14.3630	106	4.5480
-37	---	-1	284.5750	35	54.1710	71	13.8750	107	4.4170
-36	---	0	270.4070	36	51.9740	72	13.4050	108	4.2890
-35	---	1	257.0270	37	49.8780	73	12.9530	109	4.1660
-34	---	2	244.3860	38	47.8770	74	12.5190	110	4.0470
-33	---	3	232.4390	39	45.9660	75	12.1010	111	3.9320
-32	---	4	221.1440	40	44.1420	76	11.6990	112	3.8210
-31	---	5	210.4620	41	42.3980	77	11.3120	113	3.7130

RESISTANCE-TEMPERATURE CHARACTERISTICS

R_{25} : 83.0000 Kohms ± 1.0% **$B_{25/50}$: 3950°K**

T(℃)	R (KΩ)	T(℃)	R (KΩ)	T(℃)	R (KΩ)	T(℃)	R (KΩ)	T(℃)	R (KΩ)
114	3.6090	150	1.3930	186	0.6100				
115	3.5080	151	1.3600	187	0.5970				
116	3.4100	152	1.3270	188	0.5840				
117	3.3150	153	1.2950	189	0.5720				
118	3.2240	154	1.2640	190	0.5600				
119	3.1350	155	1.2340	191	0.5480				
120	3.0490	156	1.2050	192	0.5370				
121	2.9660	157	1.1760	193	0.5250				
122	2.8850	158	1.1480	194	0.5150				
123	2.8070	159	1.1210	195	0.5040				
124	2.7320	160	1.0950	196	0.4940				
125	2.6580	161	1.0690	197	0.4840				
126	2.5870	162	1.0450	198	0.4740				
127	2.5180	163	1.0200	199	0.4640				
128	2.4510	164	0.9970	200	0.4550				
129	2.3870	165	0.9740	201	0.4450				
130	2.3240	166	0.9520	202	0.4360				
131	2.2630	167	0.9300	203	0.4280				
132	2.2040	168	0.9090	204	0.4190				
133	2.1470	169	0.8880	205	0.4110				
134	2.0910	170	0.8680	206	0.4030				
135	2.0370	171	0.8490	207	0.3950				
136	1.9850	172	0.8300	208	0.3870				
137	1.9340	173	0.8110	209	0.3790				
138	1.8850	174	0.7930	210	0.3720				
139	1.8370	175	0.7760	211	0.3650				
140	1.7900	176	0.7590	212	0.3580				
141	1.7450	177	0.7420	213	0.3510				
142	1.7020	178	0.7260	214	0.3440				
143	1.6590	179	0.7100	215	0.3370				
144	1.6180	180	0.6940	216	0.3310				
145	1.5780	181	0.6790	217	0.3250				
146	1.5390	182	0.6650	218	0.3180				
147	1.5010	183	0.6500	219	0.3120				
148	1.4640	184	0.6360						
149	1.4280	185	0.6230						

NTC THERMISTOR

负温度系数热敏电阻

热敏电阻(Thermistor)是对热敏感的半导体电阻(Thermal Sensitive Resistor)，其阻值随温度变化而发生非常显著变化的半导体。一般而言分为两大类。一类是电阻值随温度升高而升高的 PTC（ Postive Temperature Coefficient ）热敏电阻。另一类是电阻值随温度升高而降低的 NTC （ Negative Temperature Coefficient ）热敏电阻。本目录说明仅限于NTC 热敏电阻。

A thermistor is "a thermally sensitive resistor" that is a semiconductor whose resistance varies significantly with temperature. In general, there are two types thermal senstive resistor. One is PTC (Postive Temperature Coefficient); the resistance increases as temperature increases. The other is NTC (Negative Temperature Coefficient); the resistance decreases as temperature increases. The following description is applicable only to NTC thermistors.

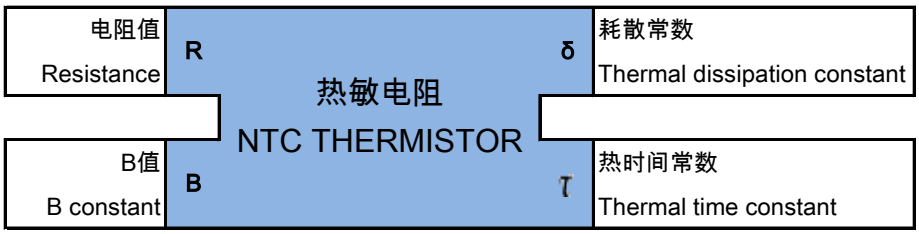
热敏电阻是应用于信息系统与控制系统的敏感元件，主要用于对温度的测量、控制、保护及用作加热器。热敏电阻是一种由锰、铜、硅、钴、镍、铁、锌等多种金属氧化物为原料烧结而成的陶瓷半导体感热晶体。使用温度在-50～+1000℃之间，涵盖了日常温度控制所需的温度范围。热敏电阻体积小、稳定性好且响应性高，在国防、工控、通信、汽车、航天等领域以及日常家电中得到了广泛的应用。

NTC thermistor is an sensitive elements widely used in information system and control system, which is mainly used for temperature measurements, control, protection and heating. Thermistors are thermally sensitive elements of sintered fine ceramic semiconductor composed of several transition metal oxides, primarily Mn, Co and Ni. Their operating temperature range is from -50°C to +1000°C that covers the whole range necessary for ordinary temperature control. They are also small, stable and have great sensitivity. Thanks to these features, they are used in large quantities as temperature sensors and temperature compensation elements in consumer electronic appliances and industrial equipment.

4个重要的参数

热敏电阻的性能主要以电阻值、B值、热耗散常数δ、热时间常数τ这4个参数来表示。有时也用电阻温度系数α作为辅助常数。

Basically, characteristics of a thermistors is represented by four constants: resistance R, B constant B, thermal dissipation constant δ and thermal time constant τ



电阻值 R (kΩ)

热敏电阻的电阻值R和绝对温度T之间，有以下近似关系。

Between resistance R and absolute temperature T, there is the following approximate relationship.

$$R1 = R2 \exp B\left(\frac{1}{T1} - \frac{1}{T2}\right) \quad \text{.....(1)}$$

根据公式、可以求证任意温度T时的热敏电阻R。

Thermistor resistance R at any temperature T can be calculated from equation (1)

R1: Resistance (Ω) at absolute temperature T1 (K)	绝对温度T1 (K) 时的电阻值
R2: Resistance (Ω) at absolute temperature T2 (K)	绝对温度T2 (K) 时的电阻值
B : B constant	B值

B constant B (K)

B值是电阻在2个温度之间的电阻值变化量的常数，由以下计算公式得出。

B is a constant that expresses a change rate in resistance between two temperatures, which is derived from the equation (1).

$$B = \frac{\ln R1 - \ln R2}{\frac{1}{T1} - \frac{1}{T2}} = \frac{2.3026(\log R1 - \log R2)}{\frac{1}{T1} - \frac{1}{T2}} \quad \cdots\cdots (2)$$

B值一般是B25℃/50℃=2000～6000K，B值越大每1℃的电阻变化率也变大。

In general, B constant value ranges B25°C/50°C = 2,000 - 6,000K. The higher the B value is, the greater the change rate in resistance per 1°C becomes.

R1: Resistance (Ω) at absolute temperature T1 (K)	绝对温度T1 (K) 时的电阻值
R2: Resistance (Ω) at absolute temperature T2 (K)	绝对温度T2 (K) 时的电阻值
B : B constant	B值

耗散常数δ (mW/℃)

耗散常数δ是指给热敏电阻通电加热时，热敏电阻晶体表面和引线产生自热的热量大小程度。

耗散常数δ可以用公式(3)计算出附加在热敏电阻上的消耗与相应的温度上升值。

Thermal dissipation constant δ is a constant that expresses a degree of radiation from surface and lead wires of a thermistor element, when electric current is applied to heat it up.

Thermal dissipation constant δ can be determined by the equation (3) as a ratio between a power consumption applied to a thermistor and a degree of temperature increased by the power.

$$\delta = \frac{W}{T - Ta} = \frac{I^2R}{T - Ta} \quad \cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots (3)$$

Thermal dissipation constant (mW/°C)	耗散常数 (mW/℃)
W: Power consumption in thermistor (mW)	热敏电阻的消耗功率(mW)
T : Temperature at heat equilibrium after rising (°C)	升温达到热平衡时的温度值(℃)
Ta : External ambient temperature (°C)	周围温度(℃)
I : Current flowing in a themistor at temperature T (mA)	温度T时，通过热敏电阻的电流值(mA)
R : Resistance of a thermistor at temperature T (kΩ)	温度T时，热敏电阻的电阻值(kΩ)

进行精密温度测量或者控制时，要观察热敏电阻的耗散常数δ的值，控制电流，避免通过热敏电阻的电流过大电阻本身加热而引起的温度误差。此产品介绍中所述耗散常数是指在静止空气中的单个热敏电阻晶体的值。请注意在组装加工成温度传感器之后其δ的值会有变化。

In order to measure temperature accurately and to control precicely, it is important to look closely at the value of of a thermistor and minimize electric current so that measurement error caused by heating is eliminated. Thermal dissipation constant in this catalog shows a value when a discrete element is placed in still air. Please note that values for assembled thermal sensors will be different.

热时间常数 τ (sec.)

热时间常数τ是在热敏电阻的周围温度或通过热敏电阻的电流在发生激烈变化的情况下，其电阻值发生急变的时间程度的常数。

热时间常数是热敏电阻晶体的温度从初始值到最终值的温度差(1-1/e)，即到达63.2%时所需要的时间。

Thermal time constant T is a constant which indicates how fast resistance of a thermistor follows to a change in surrounding temperature or electric current injected. The constant is expressed by a time to reach to (1-1/e) or 63.2% of a difference between initial and final achieving temperatures of a thermistor element.

热敏电阻应用说明

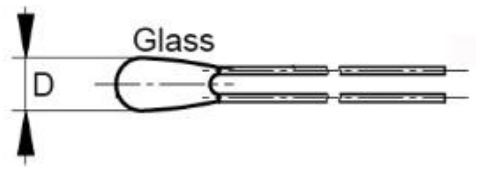
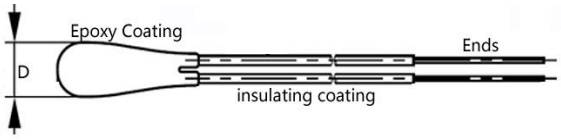
Thermistor Applications

热敏电阻 NTC THERMISTOR	(温度)传感器 (TEMPERATURE) SENSOR	民用 Civilian Applications	家电 Electric Appliances	烹调器 Cooker	电炉、烤箱、电饭锅、电磁炉、面包机、咖啡机、煤气炉 Stove, Toaster, Cooker,Heating iron, Oven, Pan, Coffee maker
				空调冷暖器 HVAC	空调、取暖器、暖床、电热地毯、电热毯 Air conditioning, Heaters, Electric carpets, Electric blankets
				家用电器 E-Appliances	热水器、锅炉、冰箱、干燥机、浴缸、太阳能系统、垃圾处理系统 Boilers, Refrigerator, Washing machine, Room dryer, Solar systems
				其他电器 Others	电子体温计、电熨斗、电吹风、染发器、熨衣板 Thermometers, Iron, Hair dryer, Hair coloring device, Ironing board
			OA		复印机、传真机、打印机、钟表、照相机 Copier, Fax machine, Printer, watches, Camera
			汽车 Auto		进气\排气温度、冷却水温度、发动机温度、变速箱温度、汽车空调 Intake/Exhaust, Cooling water, Engine, Transmission, air conditioning
		产业 INDUSTRY	农业 Agri.		温室、催芽机、制茶、牲畜饲养、烘培设备、土壤温度、粮仓温度 Greenhouse,germination,Dryer, baking, granary, Soil,fertilizer
			工业 Indu.		计量器、油温等液体测定、保温器、保温器、恒温器、自动化 Instruments,Thermostat, oil, warmer, Oil bath, Automatic
			渔业 Fish.		海水温度测定、声纳、养殖 Temperature control, water temperature, sonar, seaweed farming
			商业 Com.		冷冻冷藏成列柜、售货机、融雪设备、冷藏车、净水器 Refrigerated display racks/ Trucks, water purifier
		研究 R&D	医疗 Med.		皮肤温度、直肠温度、保育器、输液加热器、保温设备 Skin temperature, rectal, incubators, infusion heater
			理化 ph-ch		海流温度、气象观测、人造卫星、地热温度、实验室设备 Temperature measuring, atmosphere observation
	温度补偿 Temp. compensation			通信设备 Telecoms	手机电话、雷达发送设备 Cellphone, Laser transmitter
				电子元器件 E-component	水晶振荡器、液晶显示 Crystal oscillator, Liquid crystal display
				电子设备 E-Equipment	影像设备、音响设备、转换电源、手提电脑、振荡器 Video equipment, Audio equipment, Switching regulator, PC,Oscillator
	其他 other				防止过大电流、时间迟延、电话AGC、高频电力测量 In-rush current limit, Time delay, Telephone AGC, power measurement

型号与分类

Part No.

热敏电阻主要型号和特性

型号/ Part #		D (mm)	Temperature Range	示意图/Sturcture Image
MGB	MG-B05	∅0.50 ± 0.1	-50°C ~ +300°C	
	MG-B08	∅0.80 ± 0.1		
	MG-B12	∅1.20 ± 0.2	-50°C ~ +350°C	
	MG-B18	∅1.80 ± 0.2		
	MG-B23	∅2.30 ± 0.2		
MGD	MG-D18	⊙1.80 ± 1.0	-50°C ~ +250°C	
	MG-D13	⊙1.30 ± 1.0		
MEB	ME-B08	∅0.80 ± 0.1	-30°C ~ +110°C	
	ME-B12	∅1.20 ± 0.1		
	ME-B14	∅1.40 ± 0.1		
	ME-B16	∅1.60 ± 0.1		

Part No. Description

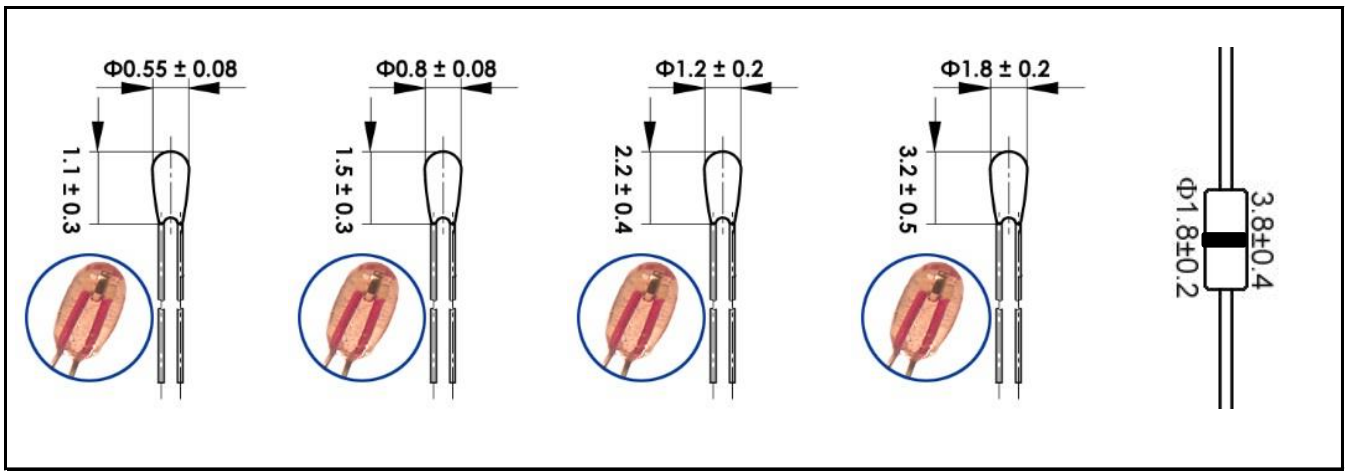
M	G	B	08	103	F	3950U	F

M	G/E	B/D	08 / 12	R @ 25°C	R ± %	B (25/50°C)	B ± %
热敏电阻	G: Glass	B: Bead	08: 0.8mm	503=50*10³Ω	F ± 1%	3000K	F ± 1%
Thermistor	玻璃封装	单端式样	12:1.2mm	104=10*10⁴Ω	G ± 2%	~	G ± 2%
	E: Epoxy	D: Diode	18:1.8mm	502=50*10²Ω	H ± 3%	5000K	H ± 3%
	环氧封装	二极管式	20:2.0mm	103=10*10³Ω	J ± 5%		J ± 5%

MGB18-103F3950UF

M	NTC Thermistor / 负温度系数热敏电阻
G	Glass sealed thermistor/ 玻璃封装热敏电阻
E	Epoxy resin coated thermistor/ 环氧树脂封装热敏电阻
B	Bead structure thermistor/ 单端珠状热敏电阻
D	Diode structure thermistor/ 二极管式热敏电阻
18	Outer diameter of the thermistor head/ 热敏电阻头部直径 1.8mm
103	Resistance @ 25°C/ 25°C 电阻值
	103=10KΩ=10*10³Ω 503=50KΩ=50*10³Ω 153=15KΩ=15*10³Ω 以此类推
F	Resistance tolerance @ 25°C ± 1% / 25°C时电阻值精度为 ± 1%. 以此类推
3950U	Beta value at (25/50°C) / B值(25/50°C)
F	Tolerance of Beta value/ B值精度 ± 1%

	MGB05	MGB08	MGB12	MGB18	MGD18	MEB08	MEB12	MEB14
使用温度 OP Temp.	-50°C ~ +300°C		-50°C ~ +350°C		-50°C ~ +250°C	-30°C ~ +110°C		
25°C 阻值 R @ 25°C	2.0KΩ ~ 200KΩ		2.0KΩ ~ 500KΩ		2.0KΩ ~ 1000KΩ	2.0KΩ ~ 200KΩ		
B(25/50°C)	3000K ~ 4500K		3000K ~ 4500K		3000K ~ 4500K	3000K ~ 4500K		
耗散常数 δ In Still Air	0.25mW/°C 0.2 - 0.3mW/°C	0.4mW/°C 0.35 - 0.55mW/°C	0.75mW/°C 0.7 - 0.9mW/°C	1.1mW/°C 1.0 - 1.2mW/°C	2.3mW/°C 1.9 - 3.0mW/°C	0.4mW/°C 0.35 - 0.55mW/°C	0.75mW/°C 0.7 - 0.9mW/°C	
热时间常数 τ In Still Air	1 s 0.6 - 1.5 s	2 s 1.7 - 2.9 s	5 s 3.5 - 6.5 s	10 s 8 - 13 s	12 s 10 - 16 s	2 s 1.7 - 2.9 s	3 s 2 -5 s	
绝缘电阻 Insulation R	DC50V 10MΩ			DC500V 50MΩ	DC500V 100MΩ	DC100V 100MΩ		
电阻精度 @25 Tolerance @25	± 1 % ± 2 % ± 3% ± 5 %					±0.16% ± 1 % ± 2 % ± 3%		
头部尺寸 mm Head Dia	Ø 0.55 ± 0.08 x 1.1 ± 0.3	Ø 0.8 ± 0.08 x 1.5 ± 0.3	Ø 1.2 ± 0.2 x 2.2 ± 0.4	Ø 1.8 ± 0.2 x 3.2 ± 0.5	Ø 1.8 ± 0.2 x 3.8 ± 0.4	Ø 0.8 ± 0.1 x 1.6 ± 0.1	Ø 1.2 ± 0.1 x 2.2 ± 0.1	Ø 1.4 ± 0.1 x 3.0 ± 0.1
引线长度 mm Leads	32mm 70mm Customized 订制				28 * 2	20 ~ 120mm Customized 订制		



PART #	R @ 25°C		B(25/50°C)	
MGB08-104F3950	100KΩ	F/G/H/J	3950	F

PART #	R @ 25°C		B(25/50°C)	
MGB12-502F3920	5KΩ	F/G/H/J	3920	F
MGB12-103F3380	10KΩ	F/G/H/J	3380	F
MGB12-103F3470	10KΩ	F/G/H/J	3470	F
MGB12-103F3950	10KΩ	F/G/H/J	3950	F
MGB12-503F3950	50KΩ	F/G/H/J	3950	F
MGB12-503F4000	50KΩ	F/G/H/J	4000	F
MGB12-104F3950	100KΩ	F/G/H/J	3950	F
MGB12-104F4000	100KΩ	F/G/H/J	4000	F

PART #	R @ 25°C		B(25/50°C)	
MGB18-502F3950	5KΩ	F/G/H/J	3950	F
MGB18-103F3350	10KΩ	F/G/H/J	3350	F
MGB18-103F3380	10KΩ	F/G/H/J	3380	F
MGB18-103F3950	10KΩ	F/G/H/J	3950	F
MGB18-503F3950	50KΩ	F/G/H/J	3950	F
MGB18-503F4000	50KΩ	F/G/H/J	4000	F
MGB18-104F3950	100KΩ	F/G/H/J	3950	F
MGB18-104F4000	100KΩ	F/G/H/J	4000	F
MGB18-104F4200	100KΩ	F/G/H/J	4200	F
MGB18-104F4230	100KΩ	F/G/H/J	4230	F
MGB18-104F4250	100KΩ	F/G/H/J	4250	F
MGB18-104F4350	100KΩ	F/G/H/J	4350	F
MGB18-204F3890	100KΩ	F/G/H/J	3890	F
MGB18-234F4130	100KΩ	F/G/H/J	4130	F

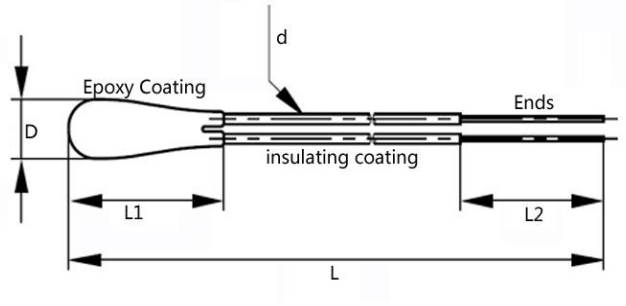
PART #	R @ 25°C		B(25/50°C)	
MGD18-302F3950	3KΩ	F/G/H/J	3950	F
MGD18-472F3470	4.7KΩ	F/G/H/J	3470	F
MGD18-502F3280	5KΩ	F/G/H/J	3280	F
MGD18-502F3470	5KΩ	F/G/H/J	3470	F
MGD18-103F3380	10KΩ	F/G/H/J	3380	F
MGD18-103F3470	10KΩ	F/G/H/J	3470	F
MGD18-103F3600	10KΩ	F/G/H/J	3600	F
MGD18-103F3950	10KΩ	F/G/H/J	3950	F
MGD18-103F4000	10KΩ	F/G/H/J	4000	F
MGD18-103F4100	10KΩ	F/G/H/J	4100	F
MGD18-153F3470	15KΩ	F/G/H/J	3470	F
MGD18-203F3470	20KΩ	F/G/H/J	3470	F
MGD18-203F3950	20KΩ	F/G/H/J	3950	F
MGD18-203F4200	20KΩ	F/G/H/J	4200	F
MGD18-203F4230	20KΩ	F/G/H/J	4230	F
MGD18-303F3950	30KΩ	F/G/H/J	3950	F
MGD18-473F4000	47KΩ	F/G/H/J	4000	F
MGD18-503F3920	50KΩ	F/G/H/J	3920	F
MGD18-503F3950	50KΩ	F/G/H/J	3950	F
MGD18-503F4000	50KΩ	F/G/H/J	4000	F
MGD18-104F3950	100KΩ	F/G/H/J	3950	F
MGD18-104F4000	100KΩ	F/G/H/J	4000	F
MGD18-104F4200	100KΩ	F/G/H/J	4200	F
MGD18-104F4330	100KΩ	F/G/H/J	4330	F
MGD18-204F3890	200KΩ	F/G/H/J	3890	F
MGD18-204F4000	200KΩ	F/G/H/J	4000	F
MGD18-234F4130	230KΩ	F/G/H/J	4130	F
MGD18-504F4050	500KΩ	F/G/H/J	4050	F

Temperature measurement 测温型负温度系数热敏电阻

Epoxy resin coated miniature sensors ME

PART #	R @ 25°C		B(25/50°C)	
MEB14-202F3950	2KΩ	F/G/H	3950	F
MEB14-222F3950	2.252KΩ	F/G/H	3950	F
MEB14-302F3950	3KΩ	F/G/H	3950	F
MEB14-502F3275	5KΩ	F/G/H	3275	F
MEB14-502F3470	5KΩ	F/G/H	3470	F
MEB14-502F3950	5KΩ	F/G/H	3950	F
MEB14-103F3380	10KΩ	F/G/H	3380	F
MEB14-103F3470	10KΩ	F/G/H	3470	F
MEB14-103F3600	10KΩ	F/G/H	3600	F
MEB14-103F3950	10KΩ	F/G/H	3950	F
MEB14-103F4100	10KΩ	F/G/H	4100	F
MEB14-303F3950	30KΩ	F/G/H	3950	F
MEB14-473F3950	47KΩ	F/G/H	3950	F
MEB14-473F4000	47KΩ	F/G/H	4000	F
MEB14-503F3950	50KΩ	F/G/H	3950	F
MEB14-503F4000	50KΩ	F/G/H	4000	F
MEB14-503F4060	50KΩ	F/G/H	4060	F
MEB14-104F3920	100KΩ	F/G/H	3920	F
MEB14-104F3950	100KΩ	F/G/H	3950	F
MEB14-104F4000	100KΩ	F/G/H	4000	F
MEB14-204F4000	200KΩ	F/G/H	4000	F
MEB12-503F3950L87	50KΩ	±0.16%	3950	F ①

STRUCTURE IMAGE/ 结构示意图



mm

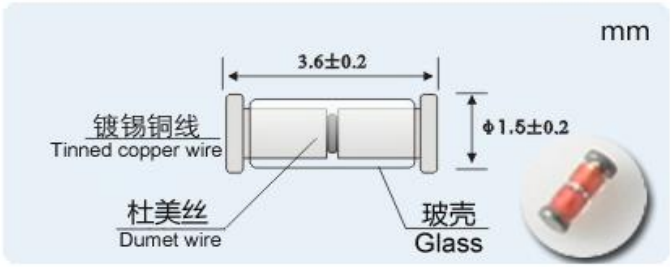
D ± 0.1	L1 ±0.1	L ± 1	L 2 ±1	d ± 0.01
0.8	2	25 ~ 120	3	0.1 ~ 0.15
1.2	3	25 ~ 120	3	0.12 ~ 0.2
1.4	3	25 ~ 120	3	0.2 ~ 0.25
1.6	4	25 ~ 120	3	0.25 ~ 0.3
CUSTOMIZED / 订制				

① SPECIAL FOR ELECTRONIC THERMOMETER
电子体温计专用热敏电阻 精度 ± 0.05°C

OTHER THERMISTOR / 其他热敏电阻

MGD-S : Glass-sealed SMD type NTC

MGD-S : 玻封贴片型



MEF : Thin Film Thermistor

MEF : 薄膜热敏电阻

