



负温度系数(NTC)热敏电阻器

Negative temperature coefficient (NTC) thermistor

热敏电阻蓝膜芯片系列

NTC Thermistor Blue Film Chip series

NTC热敏电阻蓝膜包装芯片，作为一种独特的NTC芯片包装形式是源于邦定工艺的需要，适应自动化生产。邦定封装方式相对于传统SMT贴片方式，生产效率提高，成本降低，制成品的防腐，抗震及稳定性更好，寿命更长。

As a kind of unique packaging form, NTC Thermistors for chip, that is covered with blue film, emerged from the needs of the bonding process which is characteristic of adapting to automatic protection. Bonding has such advantages as high production efficiency, low cost, better function for anti-corrosion, anti-knock, superior stability and longevity

● 特点

- ◎ 体积小
- ◎ 测温精度高
- ◎ 灵敏度高
- ◎ 反应速度快
- ◎ 稳定性好
- ◎ 便于自动化邦定封装

● 应用范围

- ◎ IGBT模块、热电堆
- ◎ 集成模块、信息控制模块
- ◎ 半导体激光器/探测器
- ◎ 热管式反应器控制器

● 主要技术参数

- ◎ 芯片外形尺寸（见下表），可根据客户要求定制
- ◎ 额定零功率电阻值 ( $R_{25}$ ): 2K~500K  $\Omega$
- ◎ 电阻值精度: H $\pm$ 3%, G $\pm$ 2%, F $\pm$ 1%, E $\pm$ 0.5%
- ◎ B值 (25/50 $^{\circ}$ C): 3380K~4480K
- ◎ B值精度: G $\pm$ 2%, F $\pm$ 1%, E $\pm$ 0.5%, D $\pm$ 0.3%, C $\pm$ 0.2%
- ◎ 耗散系数  $\delta$  (见下表)
- ◎ 热时间常数(在静止空气中)  $\tau$  (见下表)
- ◎ 额定功率  $P_w$  (见下表)
- ◎ 工作温度范围: -40 $^{\circ}$ C ~ +125 $^{\circ}$ C

Characteristics

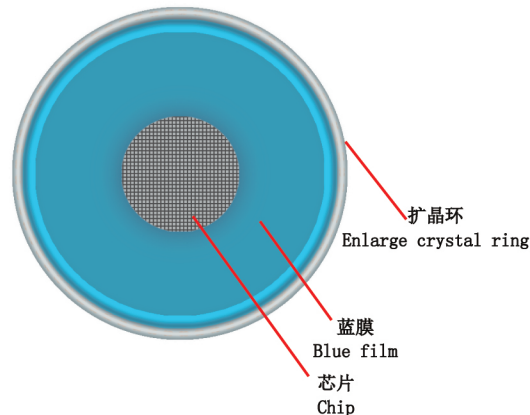
- ◎ Small size,
- ◎ High precision of temperature teasting
- ◎ High sensitivity
- ◎ Fast response
- ◎ Superior stability
- ◎ Easy to automatic mount

Applications

- ◎ IGBT module, thermopile
- ◎ Intergrated module, information control module
- ◎ Semiconductor laser/detector
- ◎ With form of heat pipe

Main technical parameters

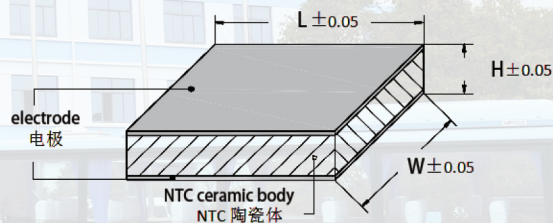
- ◎ Chip dimensions (See table below), other options available.
- ◎ Rated power resistance: ( $R_{25}$ ): 2K~500K  $\Omega$
- ◎ Resistance value tolerance: H $\pm$ 3%, G $\pm$ 2%, F $\pm$ 1%, E $\pm$ 0.5%
- ◎ B value (25/50 $^{\circ}$ C): 3380K~4480K
- ◎ B value tolerance: G $\pm$ 2%, F $\pm$ 1%, E $\pm$ 0.5%, D $\pm$ 0.3%, C $\pm$ 0.2%
- ◎ Dissipation constant  $\delta$  (See table below)
- ◎ Thermal time constant(in stirred air)  $\tau$  (See table below)
- ◎ Rated power  $P_w$  (See table below)
- ◎ Operating temperature range: -40 $^{\circ}$ C ~ +125 $^{\circ}$ C



型号 Part No	长度 (mm) L	宽度 (mm) W	高度 (mm) H	耗散系数 约 $\delta$ (mW/ $^{\circ}$ C)	热时间常数 约 $\tau$ (s)	额定功率 $P_w$ (mW) Rated power $P_w$ (mW)
MF52	0.80	0.80	0.50	0.60	3.40	32
MF52	0.64	0.64	0.45	0.40	2.00	20
MF58	0.50	0.50	0.30	0.20	1.00	10
MF58	0.32	0.32	0.23	0.10	0.35	3.50

热时间常数是在50-25 $^{\circ}$ C油中测试的  
Thermal time constant is measured in the oil of 50-25 $^{\circ}$ C

● 外形尺寸 Dimensions (mm)





热敏电阻蓝膜芯片系列

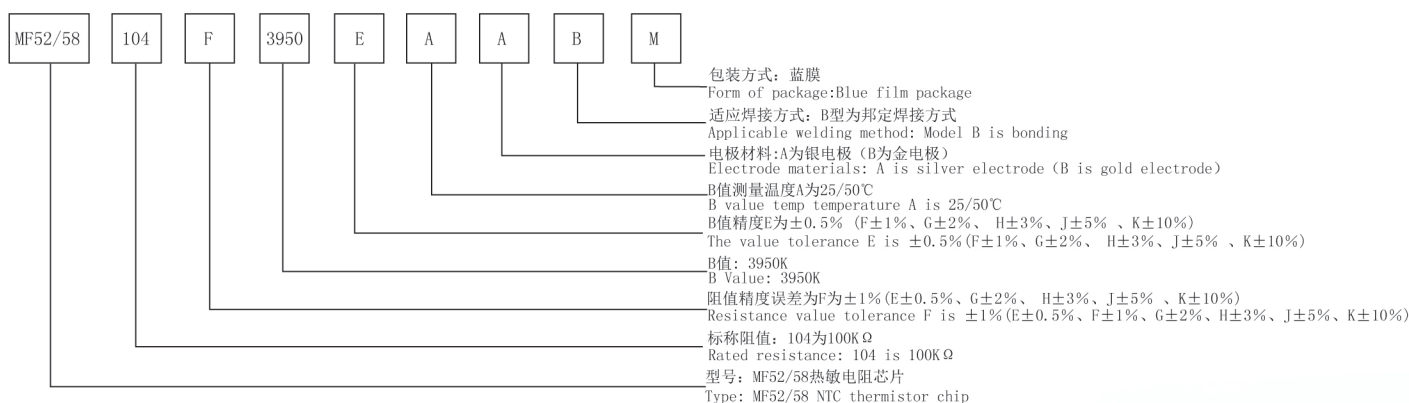
NTC Thermistor Blue Film Chip series

● 产品规格型号表示方法

Description of product specifications

MF58芯片 MF58 Chips	104	F	3950	E	A	A	B	M
①	②	③	④	④	⑥	⑦	⑧	⑨
产品代号 Product code	25℃电阻值 25℃ value	阻值精度误差 Resistance value tolerance	B值 B value	B值精度 B value tolerance	B值测量温度 B Value measuring temperature	电极材料 Electrode materials	适应焊接方式 Applicable welding method	包装方式 Form of package
MF58热敏芯片系列 MF58 thermistor chip series	10× 10 <sup>4</sup> Ω	±1%	3950K	±0.5%	25/50℃	银电极 Silver electrode	邦定 Bonding	蓝膜 Blue film

● 产品标志说明 Specifications



● 认证与检测

Certificate and test

- ◎ 质量管理体系认证 ISO9001: 2015  
IATF16949: 2016
- ◎ 环境管理体系认证 ISO14001: 2015
- ◎ 知识产权管理体系认证:  
GB/T29490-2013
- ◎ 两化融合管理体系认证:  
AITTRE-00920111MS0088301
- ◎ 芯片产品通过CQC认证: CQC09001033986
- ◎ 芯片产品通过安规认证UL、C-UL认证: E240991
- ◎ 芯片产品通过UL标准中10万次耐久性测试
- ◎ 芯片产品通过AEC-Q200试验: 20172052558G
- ◎ 环保检测报告RoHS
- ◎ Quality management system certification: ISO9001: 2015  
IATF16949: 2016
- ◎ Environment system certification ISO14001: 2015
- ◎ Intellectual property management system certification:  
GB/T29490-2013
- ◎ Certification of integrated management system certification:  
AITTRE-00920111MS0088301
- ◎ CQC certification: CQC09001033986
- ◎ UL、C-UL approvals: E240991
- ◎ Pass UL standard 100 000 durability tests
- ◎ Pass AEC-Q200 test: 20172052558G
- ◎ Environmental test report RoHS



◎ UL 1434 认证 Approval  
(File # E 240991)



◎ CQC 认证 Approval  
(File # 09001033986)