

常规系列厚膜晶片电阻
Thick Film Chip Resistor
FRC Series



■应用 (Application)

- Entertainment : Stereo,TV tuners , Tape recorder
- Appliance: Air conditioner, Refrigerator
- Computer & relative products : Main board, PDA
- Communication equipment: Cell phone, Fax machine
- Power equipment: Power supply , II Lumination equipment
- Measuring instrument: Electric meter,Navigation equipment

- 娱乐：立体声、电视调谐器、录音机
- 电器：空调、冰箱
- 电脑及相关产品：主板、PDA
- 通讯设备：手机、传真机
- 电源设备：电源、二级照明设备
- 测量仪器：电表、导航设备

■特点 (Features)

- small size and light weight
- Reliability, high quality

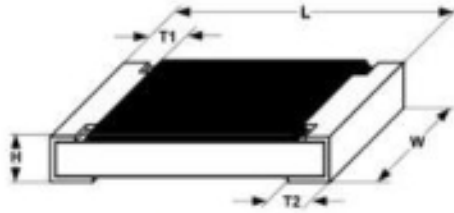
- 体积小、重量轻
- 可靠性，高质量

■产品料号 (Parts Number Explanation)

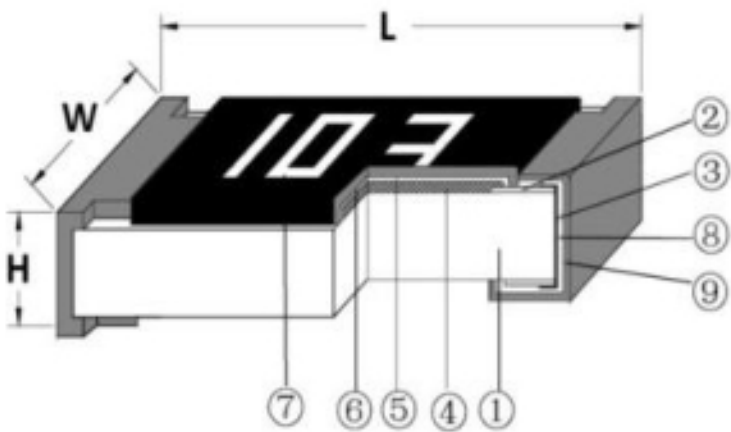
示例 (Example) : FRC1206F1001 TSD

F 公司名	R 产品别	C 功能别	1206 尺寸	F 公差	1001 字码	T 包装别	S 端电极	D 特殊码
FOJAN	R:Resistor C:Capacitor L:Inductor D:Diode A:Audion	C:Normal P:Hi-Power L:Lowohmic A:Array S:Surge H:Hi-Precision V:Hi-Voltage Q:Auto-motive R:Anti-sulfur M:Metal D: LED	0201 0402 0603 0805 1206 1210 1218 1812 2010 2512	B:±0.1% C:±0.25% D:±0.5% F:±1% J:±5% P: Jumper	±5%:E24 3-digits+blank 102=1KΩ 1R0=1Ω ±1%&Below : E24+E96 : 4-digits 1001=1KΩ 1R00=1Ω	T: 7 inch reel Q:10 inch reel R:13 inch reel B:Bulk	S : Sn C : Cu A : Au	N:Normal D : LED
Company code	Type code	Functional code	Size code	Tolerance code	Resistance code	Packaging code	Termination code	Special Case

■尺寸 (Dimension)

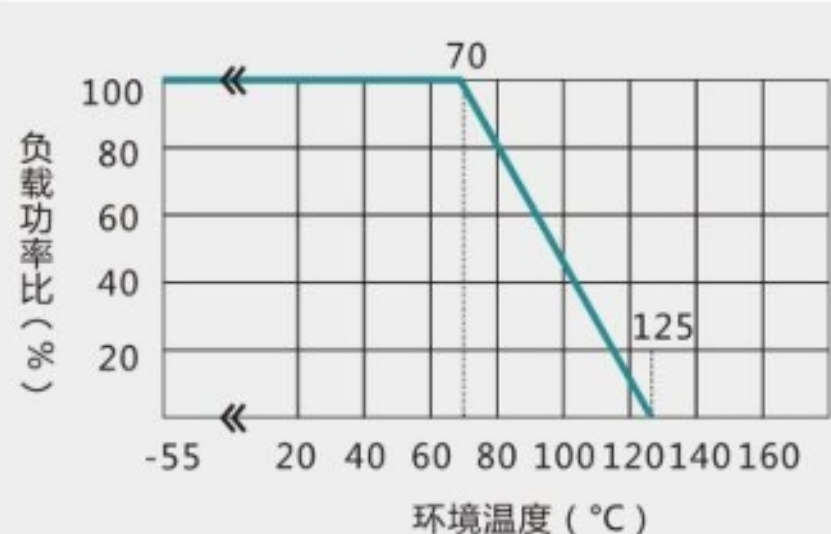
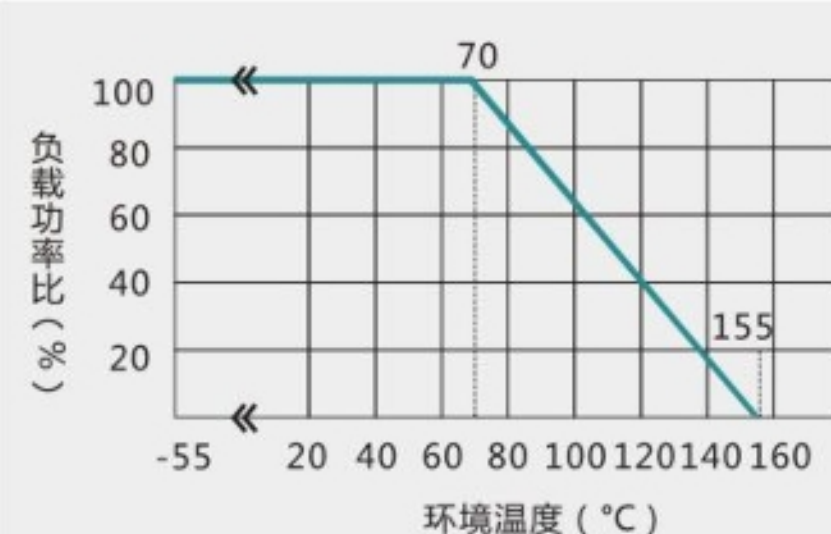
尺寸 dimension						单位 (unit) : mm
型别 (Type)	L	W	H	T1	T2	
0201	0.60±0.03	0.30±0.03	0.23±0.03	0.10±0.05	0.15±0.05	
0402	1.00±0.05	0.50±0.05	0.35±0.05	0.20±0.10	0.25±0.10	
0603	1.60±0.10	0.80±0.10	0.45±0.10	0.25±0.15	0.25±0.15	
0805	2.00±0.10	1.25±0.10	0.50±0.10	0.35±0.20	0.35±0.20	
1206	3.10±0.10	1.60±0.10	0.55±0.10	0.45±0.20	0.40±0.20	
1210	3.10±0.10	2.60±0.15	0.55±0.10	0.45±0.15	0.50±0.20	
1218	3.10±0.10	4.60±0.10	0.55±0.10	0.45±0.20	0.40±0.20	
1812	4.50±0.20	3.10±0.20	0.55±0.10	0.55±0.20	0.70±0.20	
2010	5.00±0.10	2.50±0.15	0.55±0.10	0.45±0.15	0.50±0.20	
2512	6.35±0.10	3.10±0.15	0.55±0.10	0.60±0.20	0.50±0.20	

■电阻结构 (Construction)



NO.	结构 construction	主要材料 Major material
1	陶瓷基板 Ceramic substrate	三氧化二铝 Al ₂ O ₃
2	银电极 Conductive layer	银 Ag
3	侧电极 Side conductive layer	镍铬合金 NiCr
4	阻体层 Resistive layer	氧化钌+玻璃 RuO ₂ + glass
5	内保护层 Inner protective layer	玻璃 Glass
6	外保护层 Outer Protective layer	环氧树脂 Epoxy
7	文字 Marking	环氧树脂 Epoxy
8	镍电极 Ni plating layer	镍 Ni
9	锡电极 Sn plating layer	锡 Matte Tin

功率衰减曲线 (Derating Curve)

使用温度范围	-55℃~+125℃(0201)	-55℃~+155℃
说明	周围温度若超过70℃至125℃之间,功率可照下图曲线予以修订	周围温度若超过70℃至155℃之间,功率可照下图曲线予以修订
功率衰减曲线图		

电气特性 (Electrical characteristics)

型别 Type	0201	0402	0603	0805	1206	1210	1218	1812	2010	2512
绝缘耐压 Dielectric Withstanding Voltage	-	100V	100V	300V	500V	500V	500V	500V	500V	500V
零欧姆阻值 ±1% Resistance Value of Jumper ±1%	-	<30mΩ	<30mΩ	<30mΩ	<30mΩ	<30mΩ	<30mΩ	<30mΩ	<30mΩ	<30mΩ
零欧姆阻值 ±5% Resistance Value of Jumper ±5%	<50mΩ	<50mΩ	<50mΩ	<50mΩ	<50mΩ	<50mΩ	<50mΩ	<50mΩ	<50mΩ	<50mΩ
零欧姆额定电流 Rated Current of Jumper	0.5A	1A	1A	2A	2A	2A	6A	2A	2A	2A
零欧姆电阻最大电流 Max Current of Jumper	1A	2A	2A	5A	10A	10A	10A	10A	10A	10A

■电性规格 (Standard Electrical Specifications)

型别 Type	额定功率 (PowerRating at 70℃)	最高 工作电压 Max. RCWV	最大过负荷电压 Max. Overload Voltage	T.C.R. (PPM/℃)	阻值范围 Resistance Range
0201	1/20W	25V	50V	± 400	1Ω~10Ω
				± 200	10Ω~10MΩ
0402	1/16W	50V	100V	±200	1Ω~10Ω
				± 100	10MΩ~100MΩ
0603	1/10W	75V	150V	± 200	1Ω~10Ω
				± 100	10MΩ~100MΩ
0805	1/8W	150V	300V	± 200	1Ω~10Ω
				± 100	10MΩ~100MΩ
1206	1/4W	200V	400V	± 200	1Ω~10Ω
				± 100	10MΩ~100MΩ
1210	1/3W	200V	400V	± 200	1Ω~10Ω
				± 100	10MΩ~100MΩ
1218	1W	200V	500V	± 200	1Ω~10Ω
				± 100	10Ω~1MΩ
1812	3/4W	200V	400V	± 200	1Ω~10Ω
				± 100	10MΩ~100MΩ
2010	3/4W	200V	400V	± 200	1Ω~10Ω
				± 100	10MΩ~100MΩ
2512	1W	200V	400V	± 200	1Ω~10Ω
				± 100	10MΩ~100MΩ

如有非标准品的需求,请联系我们的业务部门 For non-standard parts, please contact our sales dept.