

特征 Features

精度±5%、±2%、±1%	Tolerance ±5%,±2% ,±1%
使用温度-65°C~170°C	Operating Temperature range -65°C~170°C
电子束焊接结构	Electron beam welding
耐冲击	Ideal for pulse application
符合RoHS 要求	RoHS Compliant
特殊规格可以订做	Customizable
符合AEC-Q200	AEC-Q200 qualified



技术参数 Technical Date

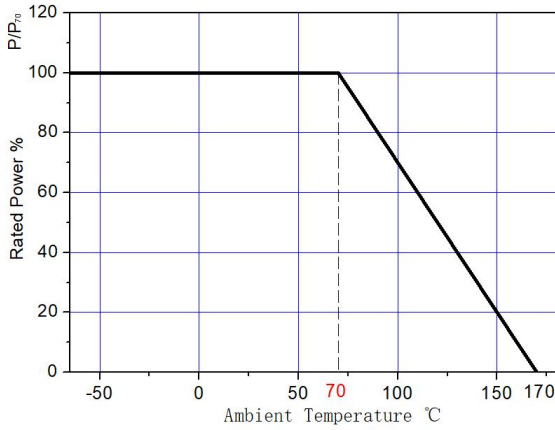
Size		4312		4320
Resistance(Unit : mΩ)		2~15	16~50	1~25
Tolerance		±1%、±2%、±5%		
Operating temperature range		-65°C to +170°C		
Power P70°C(Unit : W)		3	2	5
Temperature coefficient (Unitppm/°C)		2、3mΩ : ≤ 240		1mΩ : ≤ 240
		F/K : ±40 M : ±50		
Material(Unit : mΩ)	M : Manganin	2~9		1~4
	F : FeCrAl	10~50		5~25
	K : Karma	10~50		5~25

耐久性测试 Endurance Test

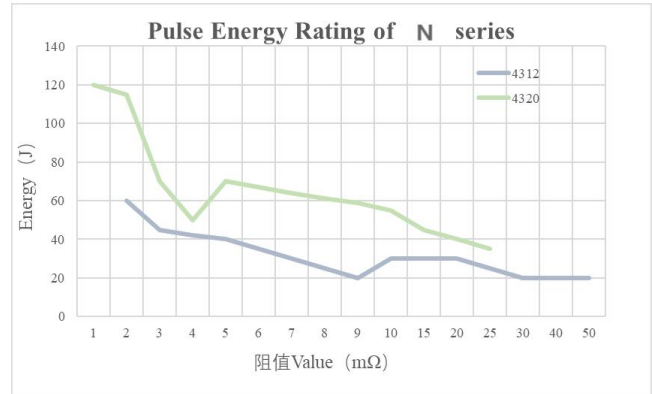
Items	Additional Requirements	Reference	Limits
Temperature Cycling	1000 Cycles(-55°C to +125°C)	JESD22 Method JA-104	±0.5%
High Temperature Exposure	100hrs.@T=170°C.Unpowered.	MIL-STD-202 Method 108	±0.5%
Biased Humidity	1000hrs 85°C/85%RH. Note:Specified conditions:10% of operating power.	MIL-STD-202 Method 103	±0.5%
Operational Life	Condition D Steady State TA=125°C at rated power.	MIL-STD-202 Method 108	±0.5%
Solderability	245°C±5°C,5s±0.5s	MIL-STD-202 Method 208H	95% Coverage Minimum
Resistance to Soldering Heat	260°C±5°C , 10s±1s	MIL-STD-202 Method 210	±0.5%
Short Time Overload	5×Rated power for 5 s	MIL-STD-202 Method 301	±0.5%

产品性能 Functional Performance

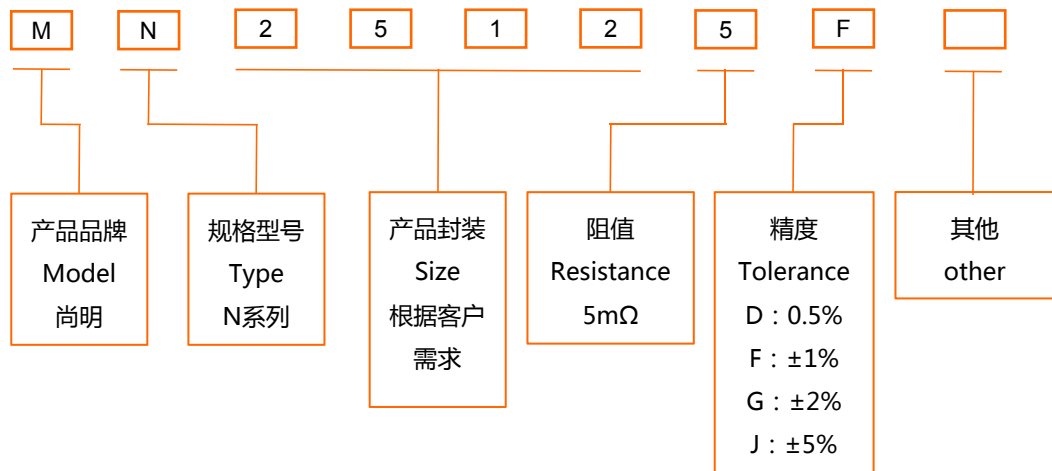
降功率曲线 Power Derating Curve



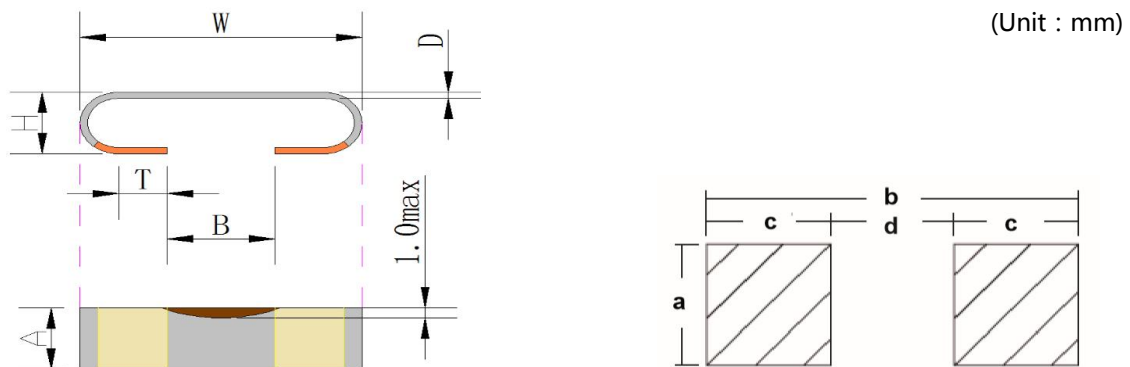
脉冲曲线 Pulse curve



产品型号说明 Part Number Description



产品尺寸和PCB板布局 Product Dimensions and pcb-layout (Reflow-soldering)



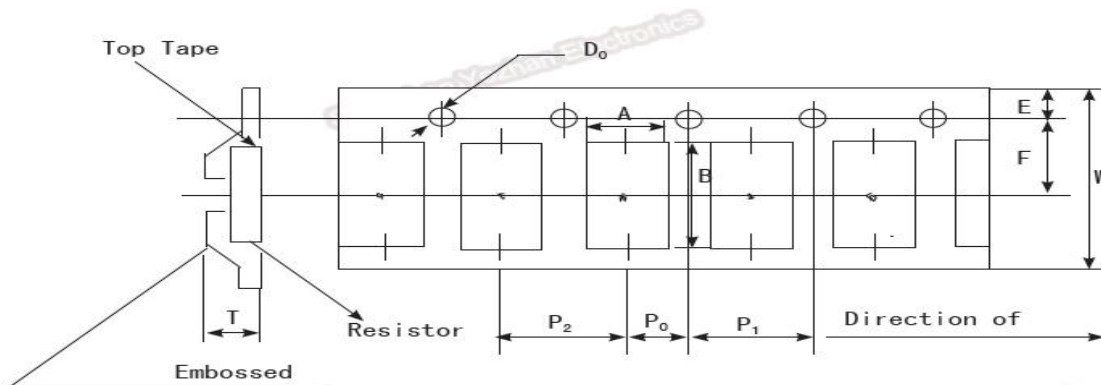
Type	Size	Resistor (mΩ)	W (mm)	H (mm)	T (mm)	B (mm)	A (mm)	D (mm)
N-K/M/F Series	4312	2-50	11±0.5	2.7-4.0	2.8±0.3	4.2±0.5	3.1±0.3	0.12-0.7
	4320	1-25					6.1±0.4	

Solder Pad Type	Size	Resistor (mΩ)	a (mm)	b (mm)	c (mm)	d (mm)
N-K/M/F Series	4312	2-50	3.6±0.2/0	13.2±0.3	5±0.1	3.2±0.1
	4320	1-25	6.5±0.2/0			

包装 Packaging

Embossed plastic Tape Specifications

(Unit : mm)



Size	A±0.1	B±0.1	W±0.3	E±0.1	F±0.1	P ₀ ±0.1	P ₁ ±0.1	P ₂ ±0.1	D ₀ ±0.1	T±0.1	Quantity (pcs)
4312	4.3	12.5	24	1.75	11.5	2	4	8	1.50	3.7	2000
4320	7.0	12.5	24	1.75	11.5	2	4	12	1.50	4.0	1000