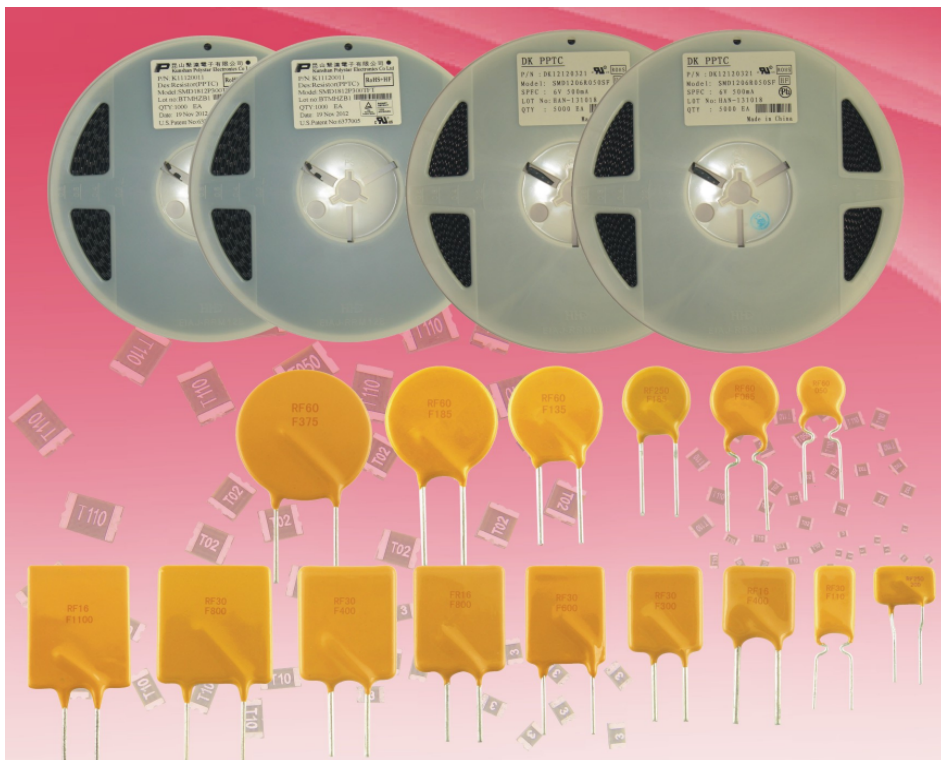


# 250R HF系列 PTC产品

## 250R HF Series PTC Devices



优良品质 · 诚信经营

一起携手 · 共创辉煌

**电气特性**
**Performance Specification**

Model	I <sub>hold</sub> (A)	I <sub>trip</sub> (A)	V <sub>max</sub> Interrupt (V <sub>rms</sub> )	I <sub>max</sub> (A)	Pd Typ. (W)	Maximum Time To Trip		Resistance		
						Current (A)	Time (Sec)	Ri min (Ω)	Ri max (Ω)	R1 max (Ω)
250R020	0.020	0.040	250	3.0	0.70	0.1	10	80	180	260
250R030	0.030	0.060	250	3.0	1.0	0.15	0.4	40.0	90.0	140
250R050	0.050	0.12	250	3.0	1.0	0.35	3.00	18.5	31.0	46.5
250R060	0.060	0.120	250	3.0	1.0	0.30	0.5	22.0	32.0	48.0
250R080	0.080	0.160	250	3.0	1.00	0.40	3.00	14.0	22.0	28.0
250R090	0.090	0.18	250	3.0	1.00	0.45	3.00	10.0	20.0	30.0
250R110	0.110	0.22	250	3.0	1.00	1.00	3.00	5.0	12.0	18.0
250R120	0.120	0.240	250	3.0	1.00	1.00	1.50	4.5	10.0	16.0
250R145	0.145	0.290	250	3.0	1.00	1.00	3.0	3.0	7.0	12.0
250R180	0.18	0.50	250	10.0	1.0	0.90	15.0	0.80	2.0	3.0
250R200	0.20	0.40	250	10.0	1.5	1.00	15.0	1.50	3.0	5.0
250R300	0.30	0.60	250	10.0	1.5	1.50	1.50	1.0	2.4	1.9
250R400	0.40	0.80	250	10.0	2.5	2.00	10.0	0.75	1.10	1.7
250R500	0.50	1.00	250	10.0	2.5	2.50	1.50	0.5	0.8	1.2
250R600	0.60	1.20	250	10.0	3.00	3.0	10.0	0.50	0.75	1.2
250R800	0.80	1.60	250	10.0	3.5	4.0	8.00	0.45	0.70	1.1
250R1000	1.00	2.00	250	10.0	4.0	5.0	10.0	0.28	0.45	0.7
250R1200	1.200	2.400	250	10.0	5.00	6.00	10.0	0.25	0.30	0.50

V<sub>max</sub> = Maximum operating voltage device can withstand without damage at rated current (I<sub>max</sub>).

I<sub>max</sub> = Maximum fault current device can withstand without damage at rated voltage (V<sub>max</sub>).

I<sub>hold</sub> = Hold Current. Maximum current device will not trip in 25°C still air.

I<sub>trip</sub> = Trip Current. Minimum current at which the device will always trip in 25°C still air.

Pd = Power dissipation when device is in the tripped state in 25°C still air environment at rated voltage.

Ri min/max = Minimum/Maximum device resistance prior to tripping at 25°C.



R1max = Maximum device resistance is measured one hour post reflow.

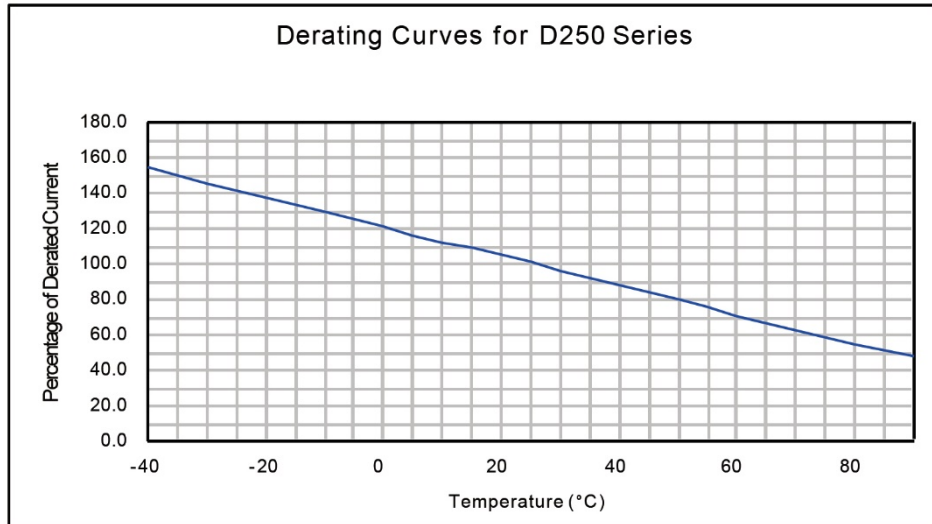
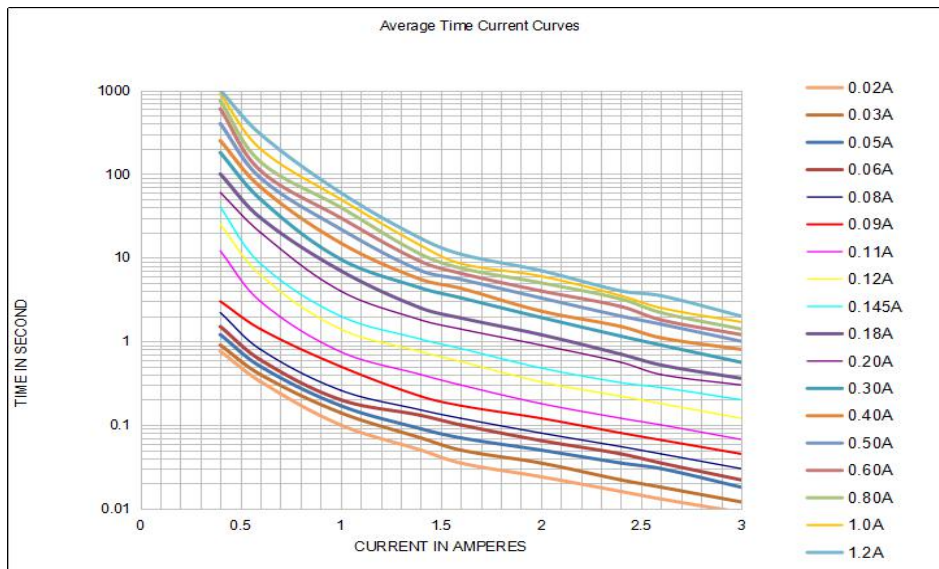
**CAUTION:** Operation beyond the specified ratings may result in damage and possible arcing and flame.

**环境规范**
**Environmental Specifications**

Test	Conditions	Resistance change
Passive aging	+85°C, 1000 hrs.	±5% typical
Humidity aging	+85°C, 85% R.H. , 168 hours	±5% typical
Thermal shock	+85°C to -40°C, 20 times	±33% typical
Resistance to solvent	MIL-STD-202, Method 215	No change
Vibration	MIL-STD-202, Method 201	No change
Ambient operating conditions: -40°C ~+85°C		
Maximum surface temperature of the device in the tripped state is 125°C		

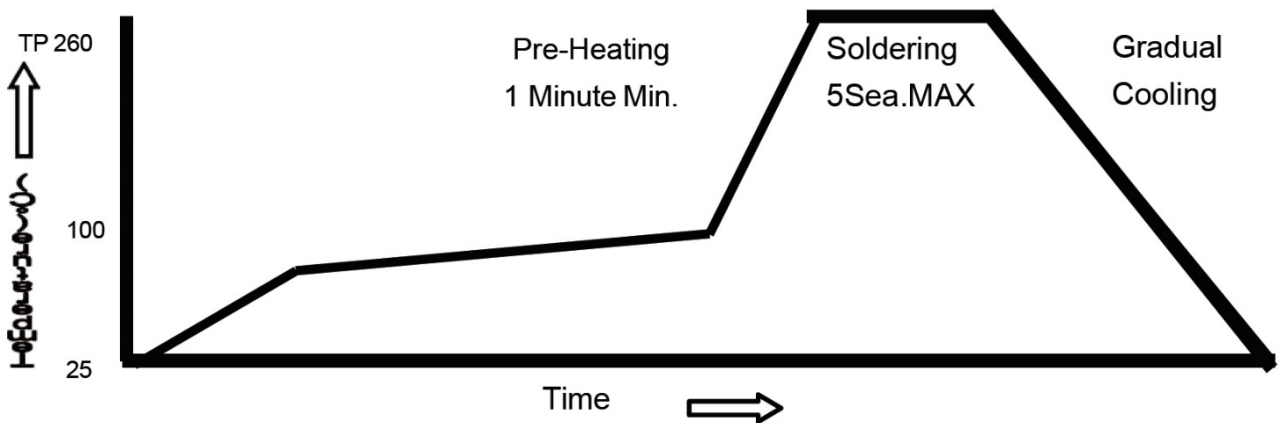
**安规认证及环保检测**
**Agency Approval and Environmental Compliance**

Agency	File Number	Regulation	Standard
UL	pending		2002/95/EC
TUV	pending		EN14582

**环境温度与工作电流关系特性图**
**Thermal Derating Curve**

**在 25°C 跳闸保护时间曲线表**
**Average Time-Current Curve**


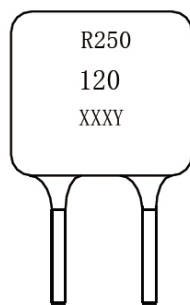
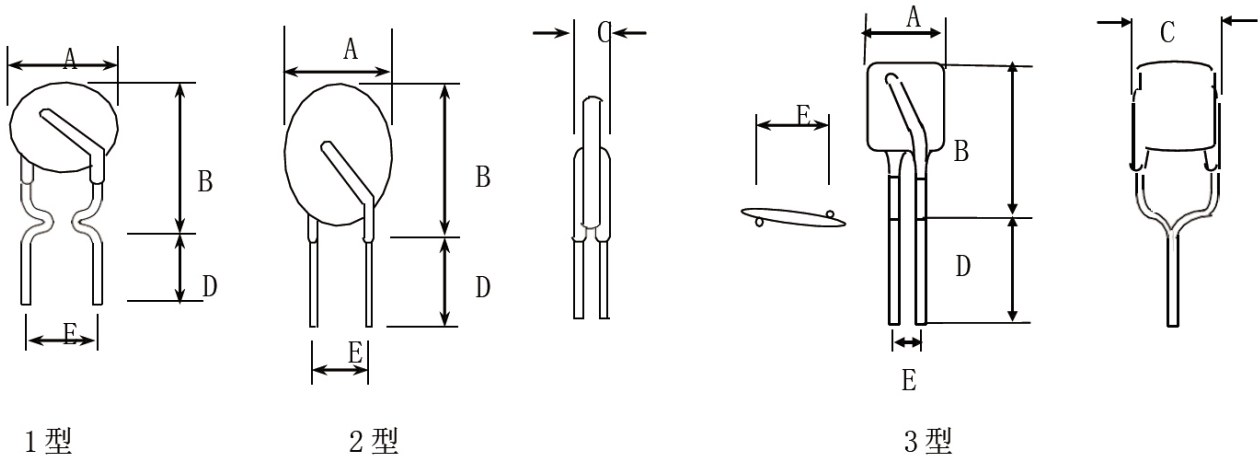
**PPTC 在不同环境温度下的保持电流(I hold)值**
**I Hold Versus Temperature**

Model	Maximum ambient operating temperature (T <sub>mao</sub> ) vs. hold current (I <sub>hold</sub> )								
	-40°C	-20°C	0°C	25°C	40°C	50°C	60°C	70°C	85°C
250R020	0.030	0.027	0.024	0.020	0.017	0.015	0.013	0.011	0.008
250R030	0.047	0.04	0.036	0.030	0.024	0.022	0.019	0.016	0.012
250R050	0.079	0.069	0.060	0.050	0.041	0.036	0.032	0.027	0.020
250R060	0.101	0.089	0.077	0.060	0.052	0.047	0.041	0.035	0.026
250R080	0.124	0.110	0.095	0.080	0.066	0.059	0.051	0.044	0.033
250R090	0.140	0.124	0.107	0.090	0.074	0.066	0.057	0.050	0.037
250R110	0.171	0.151	0.131	0.110	0.091	0.081	0.071	0.061	0.046
250R120	0.186	0.165	0.143	0.120	0.099	0.088	0.077	0.066	0.050
250R145	0.225	0.199	0.172	0.145	0.119	0.106	0.093	0.080	0.060
250R180	0.279	0.247	0.213	0.180	0.147	0.131	0.115	0.099	0.074
250R200	0.295	0.267	0.24	0.20	0.175	0.160	0.141	0.1266	0.094
250R300	0.44	0.400	0.360	0.30	0.260	0.240	0.210	0.190	0.140
250R400	0.59	0.53	0.48	0.40	0.35	0.32	0.28	0.250	0.200
250R500	0.73	0.66	0.60	0.50	0.44	0.40	0.360	0.31	0.24
250R600	0.87	0.80	0.71	0.60	0.52	0.47	0.42	0.37	0.28
250R800	1.17	1.108	0.97	0.80	0.700	0.64	0.560	0.52	0.37
250R1000	1.47	1.33	1.21	1.00	0.87	0.80	0.70	0.62	0.46
250R1200	1.76	1.60	1.45	1.20	1.05	0.95	0.85	0.76	0.56

**产品过炉焊接参数**
**Soldering Parameters**

**WAVE SOLDERING INFORMATIONS**

Pre-Heating Zone	Max. ramping rate should not exceed 4°C/Sec.
Soldering Zone	Max. solder temperature should not exceed 260°C
Cooling Zone	Cooling by natural convection in air.

© Specifications are subject to change without notice.

**产品尺寸规格**
**Physical Dimensions**


R= Trademark  
 250 = Radial type 250 V  
 120 = 0.12A hold current  
 XXX=日期  
 Y=代碼

Model	A Max.	B Max.	C Max.	D Min.	E Typ.	Lead	
						Style	直径(Φ)
250R020	0.030	0.027	0.024	0.020	0.017	0.015	0.013
250R030	0.047	0.04	0.036	0.030	0.024	0.022	0.019
250R050	0.079	0.69	0.060	0.050	0.041	0.036	0.032
250R060	0.101	0.089	0.077	0.060	0.052	0.047	0.041
250R080	0.124	0.110	0.095	0.080	0.066	0.059	0.051
250R090	0.140	0.124	0.107	0.090	0.074	0.066	0.057
250R110	0.171	0.151	0.131	0.110	0.091	0.081	0.071
250R120	0.186	0.165	0.143	0.120	0.099	0.088	0.077
250R145	0.225	0.199	0.172	0.145	0.119	0.106	0.093
250R180	0.279	0.247	0.213	0.180	0.147	0.131	0.115
250R200	0.295	0.267	0.24	0.20	0.175	0.160	0.141
250R300	0.44	0.400	0.360	0.30	0.260	0.240	0.210
250R400	0.59	0.53	0.48	0.40	0.35	0.32	0.28
250R500	0.73	0.66	0.60	0.50	0.44	0.40	0.360
250R600	0.87	0.80	0.71	0.60	0.52	0.47	0.42
250R800	1.17	0.108	0.97	0.80	0.700	0.64	0.560
250R1000	1.47	1.33	1.21	1.00	0.87	0.80	0.70
250R1200	1.76	1.60	1.45	1.20	1.05	0.95	0.85

**PHYSICAL SPECIFICATIONS:**
**Materials:**

 250R020~250R080: Tin-plated copper-clad steel, 22AWG,  $\Phi$ 0.50 mm(0.026 in).

 250R090~250R400: Tin-plated copper-clad steel, 22AWG,  $\Phi$ 0.60 mm(0.026 in).

 250R500~250R1200: Tin-plated copper-clad steel, 22AWG,  $\Phi$ 0.80 mm(0.026 in).

Lead Solderability: MIL-STD-202, Method 208E

**包装数量**
**Packaging Quantity**

250	1200	U	Model	Reel Q'ty	Bag Q'ty
Radial type	Hold	U= Bulk	250R030~250R1200	-	500
250V	Current(A)	packaged			

Tape &amp; Reel packaging per EIA468-B standard.