

Performance Specification

Model	V _{max} (Vdc)	I _{max} (A)	I _{hold} (A)	I _{trip} (A)	P _d Typ. (W)	Maximum Time To Trip		Resistance		
						Current (A)	Time (Sec)	Ri min (Ω)	Ri max (Ω)	R1 max (Ω)
						6R030	6	40	0.30	0.6
6R040	6	40	0.40	0.80	0.60	2.0	6.0	0.3	0.5	0.75
6R050	6	40	0.50	1.00	0.50	2.5	6.0	0.2	0.5	0.75
6R075	6	40	0.75	1.50	0.60	4.0	4.0	0.10	0.17	0.25
6R090	6	40	0.90	1.80	0.60	4.5	3.0	0.09	0.16	0.25
6R110	6	40	1.10	2.20	0.60	5.5	< 15S	0.07	0.15	0.30
6R160	6	40	1.60	3.20	0.90	8.00	8.0	0.03	0.07	0.11
6R185	6	40	1.85	3.70	1.0	9.25	10.0	0.045	0.074	0.12
6R200	6	40	2.00	4.00	1.0	10	8.0	0.03	0.05	0.80
6R250	6	100	2.50	5.00	1.21	12.5	10.0	0.025	0.052	0.10
6R300	6	100	3.00	6.00	2.3	15.0	2.0	0.038	0.07	0.11
6R400	6	40	4.00	8.00	2.4	20.0	3.5	0.021	0.040	0.080
6R500	6	40	5.00	10.00	2.6	25.0	3.6	0.015	0.025	0.032
6R600	6	100	6.00	12.00	2.8	30.0	5.8	0.010	0.020	0.028
6R700	6	100	7.00	14.00	3.0	35.0	8.0	0.008	0.015	0.022
6R800	6	100	8.00	16.00	3.0	40.0	9.0	0.006	0.012	0.021
6R900	6	100	9.00	18.00	3.3	45.0	12.0	0.005	0.011	0.018
6R1000	6	100	10.00	20.00	3.6	50.0	12.5	0.004	0.009	0.012
6R1100	6	100	11.00	22.00	3.7	55.0	13.5	0.004	0.008	0.011
6R1200	6	100	12.00	24.00	4.2	60.0	16.0	0.004	0.007	0.010
6R1400	6	100	14.00	28.00	4.6	70.0	20.0	0.003	0.005	0.008

V_{max} = Maximum operating voltage device can withstand without damage at rated current (I_{max}).

I_{max} = Maximum fault current device can withstand without damage at rated voltage (V_{max}).

I_{hold} = Hold Current. Maximum current device will not trip in 25°C still air.

I_{trip} = Trip Current. Minimum current at which the device will always trip in 25°C still air.

P_d = 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.

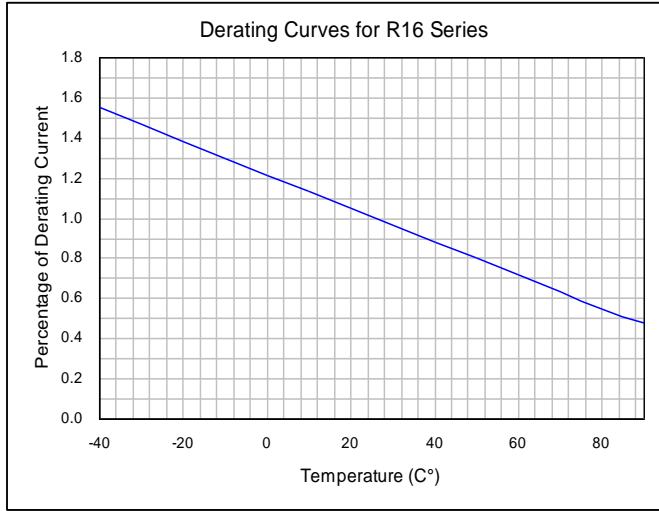
Environmental Specifications

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 to +85 °C		
Maximum surface temperature of the device in the tripped state is 125 °C		

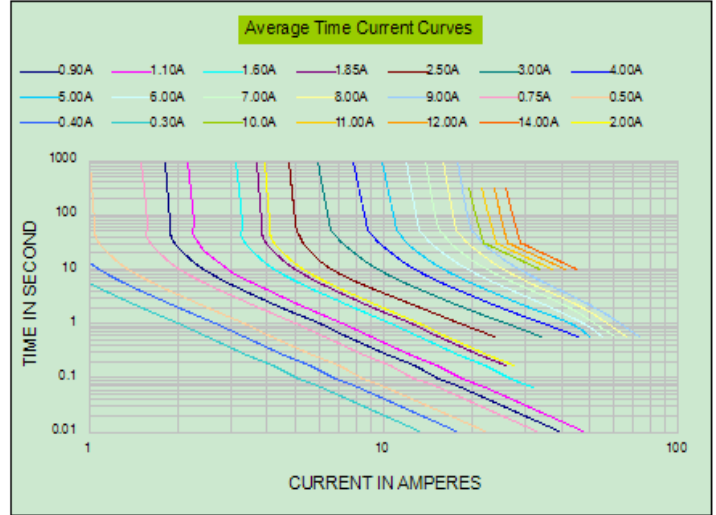
Agency Approval and Environmental Compliance

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

Thermal Derating Curve



Average Time-Current Curve



Ihold Versus Temperature

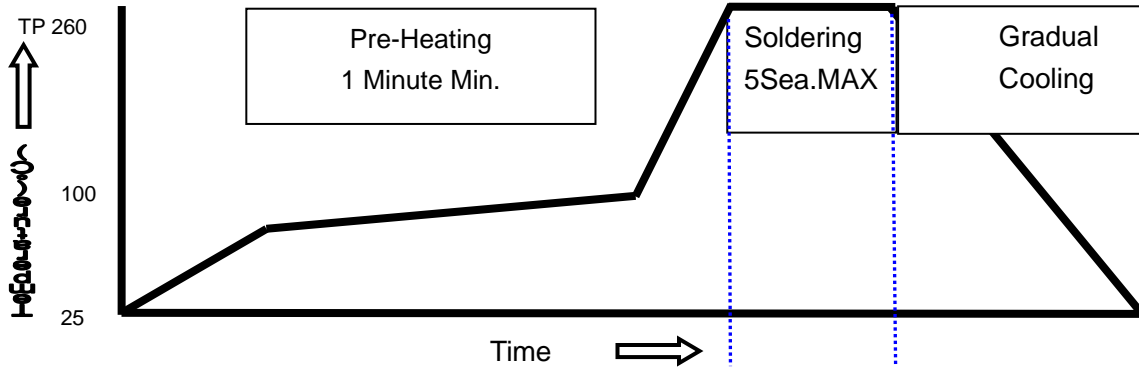
Model	Maximum ambient operating temperature (T_{mao}) vs. hold current (I_{hold})								
	-40°C	-20°C	0°C	25°C	40°C	50°C	60°C	70°C	85°C
6R030	0.44	0.39	0.35	0.30	0.25	0.23	0.20	0.18	0.15
6R040	0.58	0.52	0.46	0.40	0.34	0.31	0.27	0.25	0.21
6R050	0.73	0.65	0.58	0.50	0.42	0.39	0.34	0.31	0.26
6R075	1.09	0.98	0.86	0.75	0.62	0.58	0.51	0.46	0.39
6R090	1.31	1.17	1.04	0.90	0.75	0.69	0.61	0.55	0.47
6R110	1.60	1.43	1.27	1.10	0.91	0.85	0.75	0.67	0.57
6R160	2.32	2.08	1.84	1.60	1.33	1.23	1.09	0.98	0.83
6R185	2.68	2.41	2.13	1.85	1.54	1.42	1.26	1.13	0.96
6R200	2.94	2.66	2.40	2.00	1.74	1.60	1.40	1.26	0.94
6R250	3.63	3.25	2.88	2.50	2.08	1.93	1.70	1.53	1.30
6R300	4.40	4.00	3.60	3.00	2.60	2.40	2.10	1.90	1.40
6R400	5.90	5.30	4.80	4.00	3.50	3.20	2.80	2.50	1.90
6R500	7.30	6.60	6.00	5.00	4.40	4.00	3.60	3.10	2.40
6R600	8.80	8.00	7.20	6.00	5.20	4.80	4.20	3.80	2.80
6R700	10.3	9.30	8.40	7.00	6.20	5.60	5.00	4.40	3.30
6R800	11.7	10.7	9.60	8.00	6.90	6.40	5.60	5.10	3.70
6R900	13.2	11.9	10.7	9.00	7.90	7.20	6.40	5.60	4.20
6R1000	14.7	13.3	12.0	10.0	8.70	8.00	7.00	6.30	4.70

R HuiZhou DaRong Electronic Technology CO.,LTD

6R HF Series PTC Devices

6R1100	16.1	14.6	13.1	11.0	9.70	8.80	7.80	6.90	5.20
6R1200	17.6	16.0	14.4	12.0	10.4	9.60	8.40	7.60	5.60
6R1400	20.5	18.7	16.8	14.0	12.1	11.2	9.80	8.90	6.50

Soldering Parameters

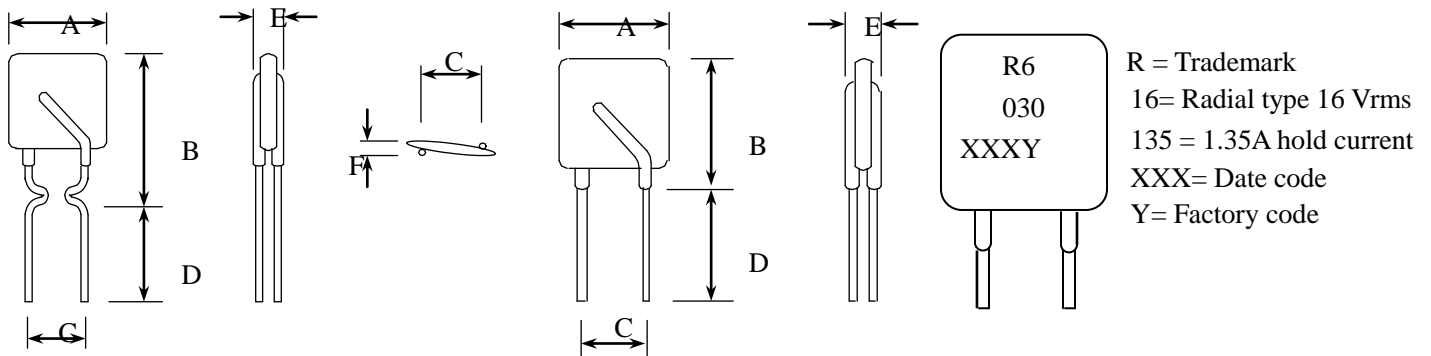


WAVE SOLDERING INFORMATIONS

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.

Physical Dimensions(mm.)



Model	A Max.	B Max.	C Typ.	D Min.	E Max.	Lead Style
6R030	5.7	10.5	5.1	7.60	3.0	Kink
6R040	5.7	10.5	5.1	7.60	3.0	Kink
6R050	5.7	10.5	5.1	7.60	3.0	Kink
6R075	5.7	10.5	5.1	7.60	3.0	Kink
6R090	5.7	10.5	5.10	7.6	3.0	Kink
6R110	7.4	13.5	5.10	7.6	3.0	Kink
6R160	8.9	15.2	5.10	7.6	3.0	Kink
6R185	10.2	15.2	5.10	7.6	3.0	Kink
6R200	11.7	16.5	5.10	7.6	3.0	Kink
6R250	11.5	18.4	5.10	7.6	3.0	Kink

R HuiZhou DaRong Electronic Technology CO.,LTD

6R HF Series PTC Devices

6R300	7.1	11.0	5.10	7.6	3.0	Straight
6R400	8.9	12.8	5.10	7.6	3.0	Straight
6R500	10.4	14.3	5.10	7.6	3.0	Straight
6R600	10.7	17.1	5.10	7.6	3.0	Straight
6R700	11.2	19.7	5.10	7.6	3.0	Straight
6R800	12.7	20.9	5.10	7.6	3.0	Straight
6R900	14.0	21.7	5.10	7.6	3.0	Straight
6R1000	16.5	25.2	5.10	7.6	3.0	Straight
6R1100	18.2	26.0	5.10	7.6	3.0	Straight
6R1200	18.2	28.0	5.10	7.6	3.00	Straight
6R1400	28.6	28.7	10.20	7.6	3.00	Straight

PHYSICAL SPECIFICATIONS :

Materials : Leads 6R030~250 : Tin plated copper-clad steel, 24 AWG (0.51mm/0.020" Dia.)

6R300~1100 : Tin plated copper, 20 AWG (0.81mm/0.032" Dia.)

6R1200~1400 : Tin plated copper, 18 AWG (1.0mm/0.04" Dia.)

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

Device Labeling : Device is marked with Logo, amperage rating , voltage rating & date code.

Packaging Quantity

6	030	K or S	R or U	Model	Reel Q'ty	Bag Q'ty
Radial type	Hold	K= Kink leads	R=Tape&reel	6R030 ~ 6R 600	3000	500
6V	Current	S=Straight	U= Bulk	6R700 ~ 6R 900	1500	500
	(A)	leads	packaged	6R1000 ~ 6R1400	-	500

Tape & Reel packaging per EIA468-B standard.