JF16 Series

Positive Thermal Coefficient （PTC)

Description

Positive Thermal Coefficient devices (PTC), provide over-current protection for electrical and electronic devices. They function using conducting strips of metal imbedded inside polymers Under normal conditions, the devices resistance is near zero but over-current conditions will heat the PTC and expand the polymer, increasing the impedance. When current returns to normal, the components cool down, returning to their original shape and very low levels of resistance.

Features

* I(hod):0.3-15A
* 16V Operating voltages
* Radial leaded devices
* Over-current protection
* Very high voltage surge capabilities
* Available in lead-free version.
* Fast time- to-trip
* ROHS compliant, Lead- Free and Halogen-Free

Device Schematic

Applications

* Over-current and over-temperature protection of automotive electronics
* Hard disk drives
* Point-of-sale (POS) equipment
* PCMC|A cards
* Power over Ethernet (POE)
* HDMI 1.4 Source protection
* Computers peripherals
* Industrial control
* Security systems

Ordering Information

Part Number	Quantity
JF 16-030~JF 16-1000	500PCS/bag
JF 16-030~JF 16-1200	250PCS/bag
JF 16-030~JF 16-1500	200PCS/bag

Performance Specification

Model	I_{hold} (A)	I_T (A)	V_{max} (V)	Maximum Time to Trip		I_{max} (A)	Pd_{typ} (W)	Resistance(Ω)	
				Current(A)	Time(S)			Ri_{min}	$R1_{max}$
JF16-030	0.3	0.6	16	1.5	1	40	0.3	0.3	1.3
JF16-050	0.5	1.0	16	2.5	1.1	40	0.4	0.2	0.65
JF16-075	0.75	1.5	16	3.75	4.8	40	0.3	0.1	0.28
JF16-090	0.9	1.8	16	4.5	1.2	40	0.6	0.09	0.25
JF16-110	1.1	2.2	16	5.5	2.3	40	0.7	0.08	0.24
JF16-135	1.35	2.7	16	6.75	4.5	40	0.8	0.04	0.25
JF16-160	1.6	3.2	16	8	9	40	0.9	0.03	0.2
JF16-200	2	4	16	10	9	40	0.9	0.018	0.12
JF16-300	3	6	16	15	2	40	2.3	0.02	0.11
JF16-400	4	8	16	20	3.5	40	2.4	0.02	0.08
JF16-500	5	10	16	25	3.6	40	2.6	0.014	0.044
JF16-600	6	12	16	30	5.8	40	2.8	0.009	0.031
JF16-700	7	14	16	35	8	40	3.0	0.006	0.022
JF16-800	8	16	16	40	9	40	3.0	0.005	0.021
JF16-900	9	18	16	45	12	40	3.3	0.004	0.018
JF16-1000	10	20	16	50	12.5	40	3.6	0.003	0.015
JF16-1100	11	22	16	55	13.5	40	3.7	0.003	0.013
JF16-1200	12	24	16	60	16	40	4.2	0.002	0.012
JF16-1300	13	26	16	65	18	40	4.6	0.002	0.012
JF16-1400	14	28	16	70	20	40	4.6	0.002	0.011
JF16-1500	15	30	16	75	18	40	4.6	0.002	0.0075

I_H = Hold current: maximum current at which the device will not trip at 25℃ still air.

I_T = Trip current: minimum current at which the device will always at 25℃ still air.

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

I_{max} = Maximum fault current device can withstand tithout damage at rated voltage.

T_{trip} = Maximum time to trip (s) at assigned current.

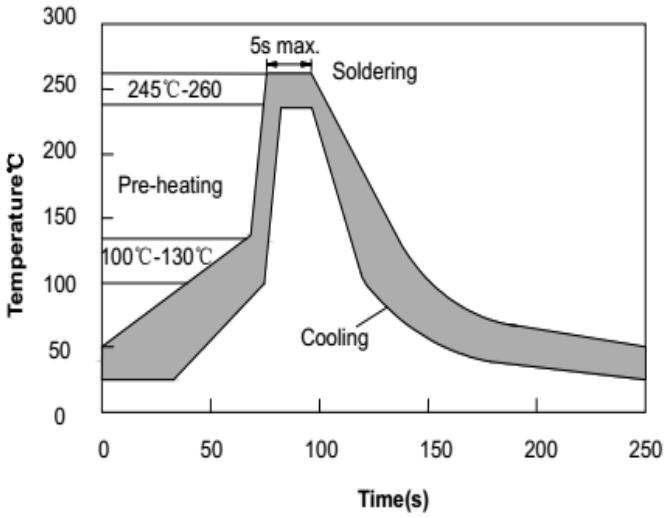
Pa = Typical power dissipation: typical amount of power dissipated by the decice when in state air environment.

Ri_{min} = Minimum device resistance at 25C prior to tripping.

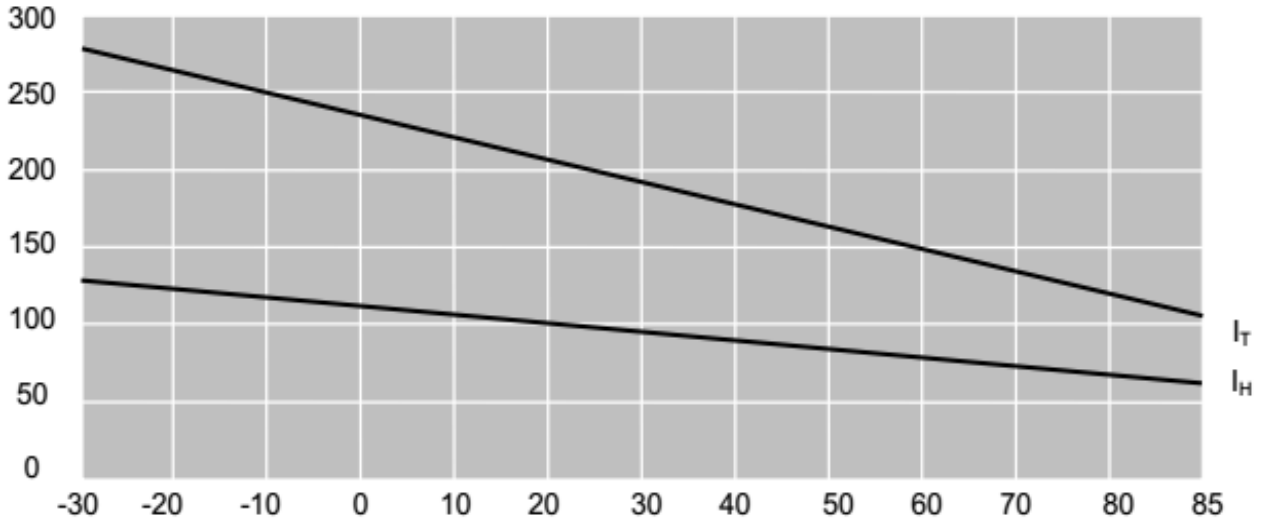
$R1_{max}$= Maximum device resistance is measured one hour post reflow .

Solder reflow conditions

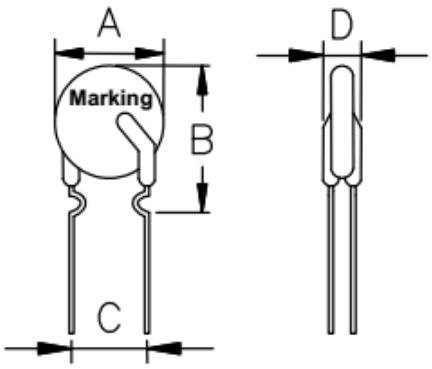
Wave Soldering
Soldering Temperature:260℃~270℃
Soldering Time:≤3sec.
Soldering Position: Resettable fuse wire and the bottom ≥ 6mm。
Manual soldering
Soldering Temperature:250℃~280℃
Soldering Time:≤3sec.
Soldering Position: Resettable fuse wire and the bottom ≥ 6mm。



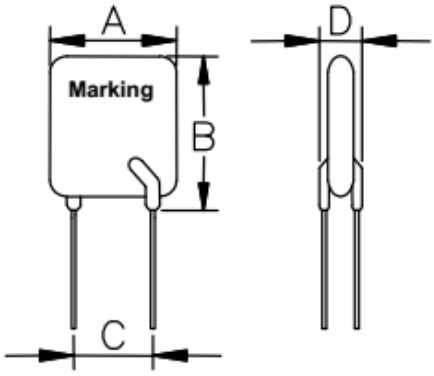
Environmental temperature and IH,IT



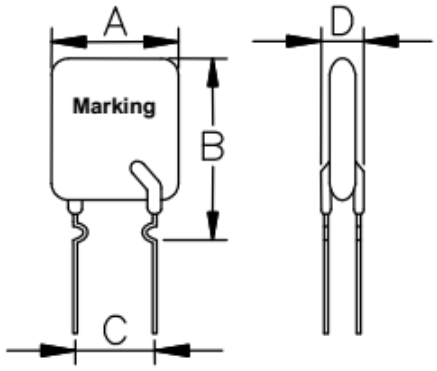
Product Dimensions



Pig. 1



Pig. 2

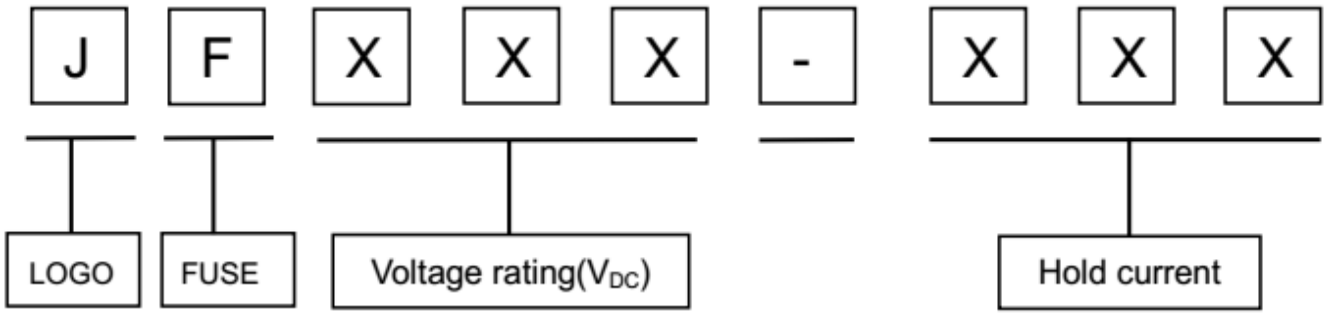


Pig. 3

Type Number	Dimensions（mm）					Dimensions（in）					Shape
	A(max)	B(max)	C(typ)	D(max)	LeadΦ (typ)	A(max)	B(max)	C(typ)	D(max)	LeadΦ (typ)	Fig
JF16-030	4.5	9.0	5.1	3.1	0.5	0.177	0.354	0.201	0.122	0.02	1
JF16-050	5.5	12.0	5.1	3.0	0.5	0.224	0.217	0.201	0.118	0.02	1
JF16-075	6.9	11.4	5.1	3.0	0.5	0.272	0.449	0.201	0.118	0.02	1
JF16-090	7.4	13.5	5.1	3.0	0.5	0.291	0.531	0.201	0.118	0.02	1
JF16-110	7.4	14.2	5.1	3.0	0.6	0.291	0.559	0.201	0.118	0.024	1
JF16-135	8.9	13.5	5.1	3.0	0.6	0.350	0.531	0.201	0.118	0.024	3
JF16-160	8.9	16.7	5.1	3.0	0.6	0.350	0.657	0.201	0.118	0.024	1
JF16-200	9.0	13.5	5.1	3.0	0.6	0.354	0.531	0.201	0.118	0.024	2
JF16-300	9.0	12.0	5.1	3.0	0.8	0.354	0.472	0.201	0.118	0.031	2
JF16-400	10.0	13.0	5.1	3.0	0.8	0.394	0.512	0.201	0.118	0.031	2
JF16-500	10.7	17.5	5.1	3.0	0.8	0.421	0.689	0.201	0.118	0.031	2
JF16-600	13.5	17.5	5.1	3.0	0.8	0.531	0.689	0.201	0.118	0.031	2
JF16-700	13.5	23.0	5.1	3.0	0.8	0.531	0.906	0.201	0.118	0.031	2
JF16-800	13.5	23.0	5.1	3.0	0.8	0.531	0.906	0.201	0.118	0.031	2
JF16-900	15.0	24.0	5.1	3.0	0.8	0.591	0.945	0.201	0.118	0.031	2
JF16-1000	18.0	26.0	5.1	3.0	0.8	0.709	1.024	0.201	0.118	0.031	2
JF16-1100	18.2	26.0	5.1	3.0	0.8	0.717	1.024	0.201	0.118	0.031	2
JF16-1200	22.5	28.0	5.1	3.5	0.8	0.886	1.102	0.201	0.138	0.031	2
JF16-1300	26.5	30.0	10.2	3.0	0.8	1.043	1.181	0.402	0.118	0.031	2
JF16-1400	28.6	30.0	10.2	3.5	0.8	1.126	1.181	0.402	0.138	0.031	2
JF16-1500	28.6	31.5	10.2	3.0	0.8	1.043	1.122	0.402	0.118	0.031	2

Positive Thermal Coefficient (PTC)

Part Number Code



Environmental Specifications

Test	Conditions	Resistance change
Passive aging	+85℃,1000hrs	±8% typical
Humidity aging	+85℃，85%R.H.1000hrs	±8% typical
Thermal shock	+125℃ to -55℃，10times	±12% typical
Resistance to solvent	MIL-STD-202，Method 215	No change
Vibration	MIL-STD-202，Method 201	No change

NOTICE

Jelan-Link reserves the right to make changes without further notice to any products here in.

Only obligations are those in the Jelan-Link Standard Terms and Conditions of Sale and in no case will Jelan-Link be liable for any incidental, indirect, or consequential damages arising from the sale, resale, use, or misuse of its products.