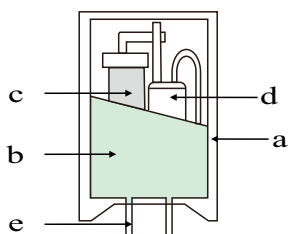


## ● Features

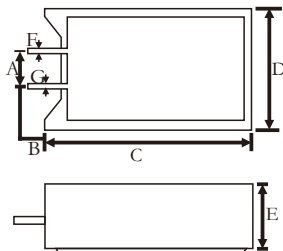
- I The product is a combination of merging alloy thermal fuse and 1W resistor.
- II FRW1 is not consist of lead, Cadmium. (RoHs target products)
- III FRW1 can develop its excellent cut off characteristics when overload situation.
- IV It is made for protecting the switching adaptor because of the small size design.
- V The impact resistor properties

## ● Construction



a	Ceramic case
b	Silicone cement
c	Resistance(Ceramic insulator)
d	Thermal-Links
e	Lead wire(Tin plated copper wire)

## ● Dimensions



Type	Power	Dimensions(mm)						
		A	B	C	D	E	F	G
FRW1	1W	5±0.5	3.5 <sup>+1</sup> <sub>-0.5</sub>	14.5±0.5	12±0.5	5±0.5	Φ0.58±0.04	Φ0.53±0.04

## ● Ordering Information

Example:

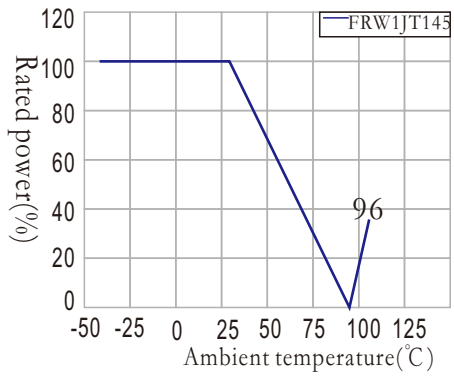
FRW1	01	J	47	T14
(1)	(2)	(3)	(4)	(5)
Series Name	Power Rating	Resistance Tolerance	Resistance	Temperature

- (1) Type: FRW1 SERIES
- (2) Power Rating: 01=1W
- (3) Tolerance: J=±5%
- (4) Resistance Value: 1.8~47Ω※1
- (5) Temperature: T14=145°C

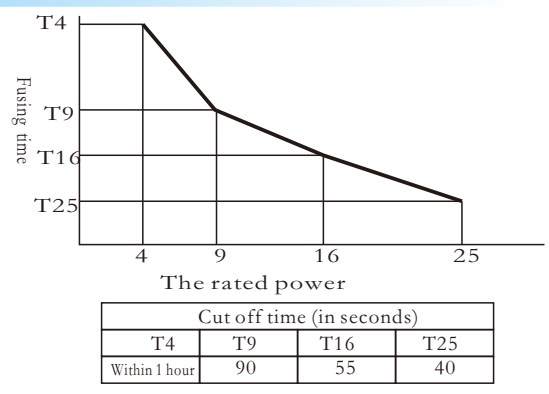
## ● Reference Standards

JIS C 5201-1

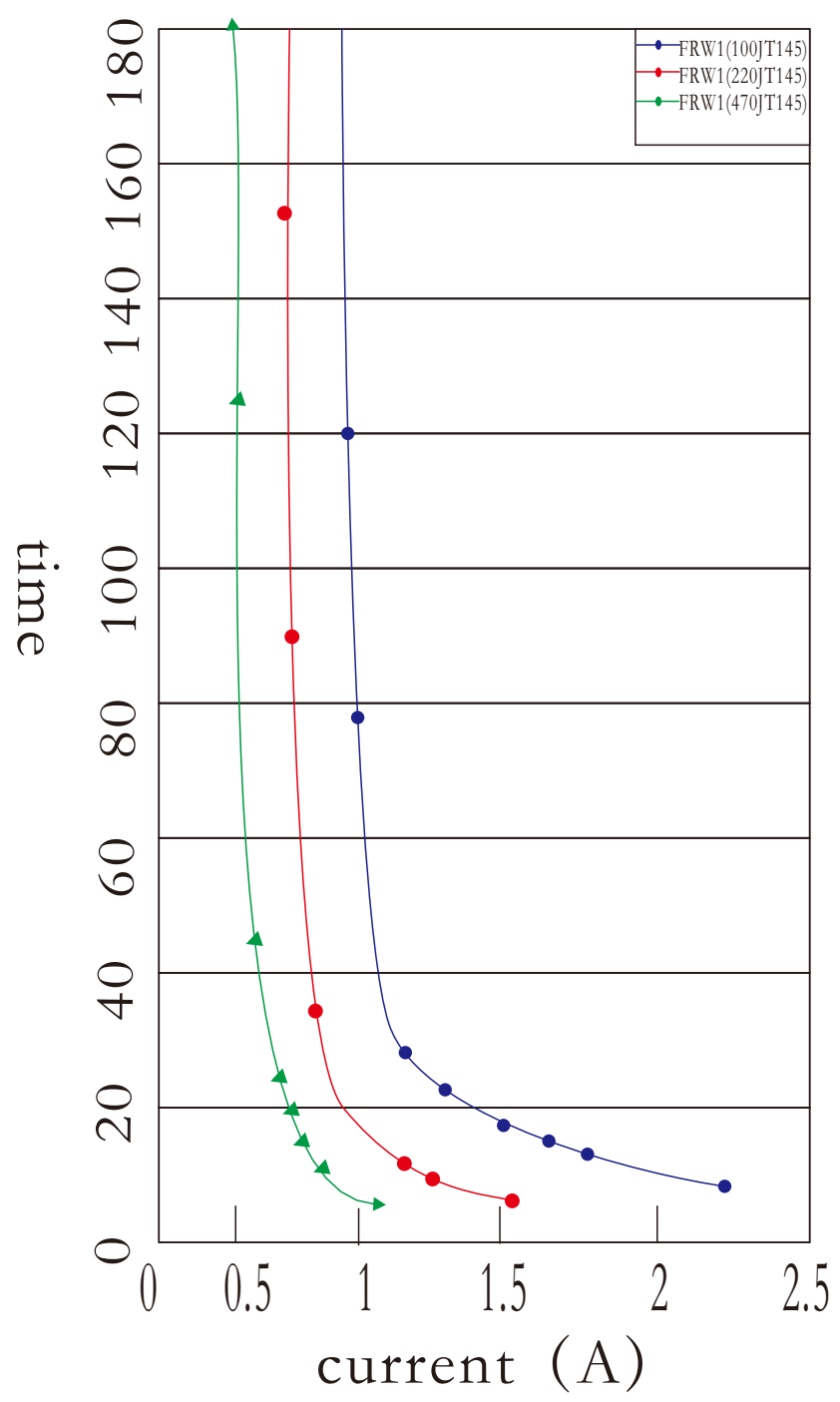
### Derating Curve



### Fusing performance.



### Fusing features



## Power And Resistance etc

Type	FRW1□□□Jt145	
The rated power (25° C)	1W	
The rated resistance value	1.8~47Ω※1	
Tolerance	±5%	
Fusible Resistor	Type	N7F
	The rated operating temperature Tf	145° C
	The rated voltage	AC250V
	The rated current	1A

## Performance

Test Items	Performance Requirements	Test Methods(JIS C 5201-1)
Resistance	Within specified tolerance	Measuring points are 10mm from the end cap
Operating Temperature	FRW1 □ □ □ J14 : $\pm 145+0^{\circ} \text{ C}$ $-7^{\circ} \text{ C}$	The fusing temperature of thermal fuse rises 0.5-1.0° C per minute in the silicon oil bath and the testing current is less than 10mA. It is the actual temperature of thermal resistor.
Insulation resistance	$\geq 1000\text{M}\Omega$ above	Test by placing DC500V on the resistor.
	The resistance between the two terminals of leading wire is above 0.2MΩ.	After the experiment, test by placing DC500V between the two terminal.
Withstand Voltage	Hold on 1 min between the terminals of body and lead wire.	Test by placing AC1.5kV for 1 min between the ceramic shell and the lead wire.(Current 0.5Max).
	Hold on 1 min between the resistance between the two terminals	After the experiment, test by placing DC500V between the two terminal.
T.C.R.	$\pm 250\text{ppm}/^{\circ} \text{ C}$	Room temperature+100°C
Short time overload	$\pm (2\%R+0.05\Omega)$	10 times the rated power for 5 seconds
Resistance to soldering heat	$\pm (1\%R+0.05\Omega)$	265° C $\pm 5^{\circ} \text{ C}$ , 5sec.
Terminal Strength	No disconnection, looseness, damage.	tensile 20N, 1 min Distort 90° C 1 cycle
Moisture resistance	$\pm (2\%R+0.05\Omega)$	40°C ,90%~95%RH for 240hours
Load life features	$\pm (3\%R+0.05\Omega)$	Rated load for 1000 hours, a cycle of 1.5 hours on/0.5 hour off.