

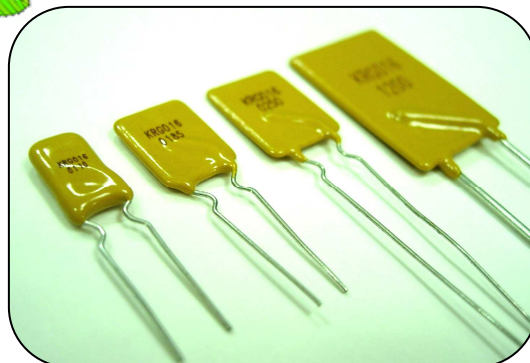
Polymer PTC Resettable Fuse: KRG Series



KRG016 Radial Leded Type 16V

■ Features

1. RoHS compliant
2. Radial leaded devices
3. Broadest range of resettable devices available in the industry
4. Current ratings from 0.75 to 15A
5. Maximum voltage is 16V
6. Operating temperature range : -40 ~ +85°C
7. Agency Recognition :UL /cUL/TUV



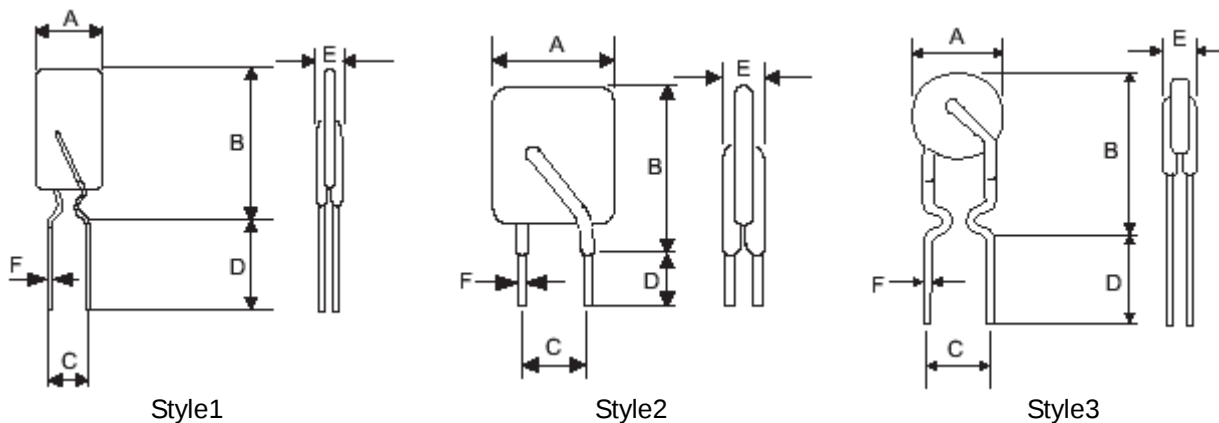
■ Recommended Applications

1. Motors, fans and blowers
2. Keyboard / mouse
3. Transformers
4. Industrial controls

■ Part Number Code

K	R	G	0	1	6	0	1	3	5	I	B	Y				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
Product Type		Form Factor		Usage		Max. Operating Voltage		I hold		Appearance		Packaging		Optional Suffix		
K	Thinking PPTC thermistor	R	Radial	G	General	016	16V	0075	0.75A	S	Straight lead	B	Bulk	Y	RoHS compliant	
								0090	0.9A	I	Inner kink lead	R	Taping & Reel			
								0014	0.14A	F	Y kink lead					
								0135	1.35A							
								0170	1.7A							
								0600	6A							
								1000	10A							
								1200	12A							

■ Structure and Dimensions



Marking: Device is marked Vmax. operation, I hold

(Unit: mm)

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Part No.	A	B	C	D	E	F	Figure
	Max.	Max.	Typ.	Typ.	Max.	Typ.	Style
KRG0160075	7.0	11.5	5.0±0.8	7.6	3.1	0.5±0.02	3
KRG0160090	7.4	12.2	5.0±0.8	7.6	3.1	0.5±0.02	1
KRG0160110	7.4	14.2	5.0±0.8	7.6	3.1	0.5±0.02	1
KRG0160120	7.0	11.7	5.0±0.8	7.6	3.1	0.5±0.02	3
KRG0160135	8.9	13.5	5.0±0.8	7.6	3.1	0.5±0.02	1
KRG0160155	6.9	11.7	5.0±0.8	7.6	3.1	0.5±0.02	3
KRG0160160	8.9	15.2	5.0±0.8	7.6	3.1	0.5±0.02	1
KRG0160185	10.2	15.7	5.0±0.8	7.6	3.1	0.5±0.02	1
KRG0160250	11.4	18.3	5.0±0.8	7.6	3.1	0.5±0.02	1
KRG0160300	7.1	11.0	5.0±0.8	7.6	3.1	0.8±0.02	2
KRG0160400	8.9	12.8	5.0±0.8	7.6	3.1	0.8±0.02	2
KRG0160500	10.4	14.3	5.0±0.8	7.6	3.1	0.8±0.02	2
KRG0160600	10.7	17.1	5.0±0.8	7.6	3.1	0.8±0.02	2
KRG0160700	11.2	19.7	5.0±0.8	7.6	3.1	0.8±0.02	2
KRG0160800	12.7	20.9	5.0±0.8	7.6	3.1	0.8±0.02	2
KRG0160900	14.0	21.9	5.0±0.8	7.6	3.1	0.8±0.02	2
KRG0161000	16.5	25.2	5.0±0.8	7.6	3.1	0.8±0.02	2
KRG0161100	17.5	26.0	5.0±0.8	7.6	3.1	0.8±0.02	2
KRG0161200	17.5	28.0	10.0±0.8	7.6	3.1	1.0±0.02	2
KRG0161300	21.6	29.2	10.0±0.8	7.6	3.1	1.0±0.02	2
KRG0161400	23.5	27.9	10.0±0.8	7.6	3.1	1.0±0.02	2
KRG0161500	25.1	29.0	10.0±0.8	7.6	3.1	1.0±0.02	2

■ Electrical Characteristics(23°C)

Part No.	Vmax.	I _{max} .	I _{hold} @ 23°C	I _{trip} @ 23°C	P _d (Typ.)	Maximum Time to Trip		Resistance (Ω)			Safety Approvals	
	(V _{dc})	(A)	(A)	(A)	(W)	(A)	(Sec)	Initial (R _i)		Post trip (R ₁)	UL/cUL	TUV
								Min.	Max.	Max.		
KRG0160075	16	40	0.75	1.50	0.30	8.00	0.4	0.110	0.175	0.230		√
KRG0160090	16	40	0.90	1.80	0.60	8.00	1.20	0.070	0.120	0.180		√
KRG0160110	16	40	1.10	2.20	0.70	8.00	2.30	0.050	0.095	0.140		√
KRG0160120	16	40	1.20	2.40	0.60	8.00	0.50	0.065	0.0975	0.140		√
KRG0160135	16	40	1.35	2.70	0.80	8.00	4.50	0.040	0.074	0.120		√
KRG0160155	16	40	1.55	3.10	0.70	8.00	0.60	0.043	0.0705	0.100		√
KRG0160160	16	40	1.60	3.20	0.90	8.00	9.00	0.030	0.061	0.110		√
KRG0160185	16	40	1.85	3.70	1.00	8.00	10.00	0.030	0.051	0.090		√
KRG0160250	16	40	2.50	5.00	1.20	8.00	40.00	0.020	0.036	0.070		√
KRG0160300	16	100	3.00	5.10	2.30	15.00	1.00	0.038	0.065	0.098	√	√
KRG0160400	16	100	4.00	6.80	2.40	20.00	1.70	0.021	0.038	0.060	√	√
KRG0160500	16	100	5.00	8.50	2.60	25.00	2.00	0.010	0.023	0.034	√	√
KRG0160600	16	100	6.00	10.20	2.80	30.00	3.30	0.006	0.018	0.028	√	√
KRG0160700	16	100	7.00	11.90	3.00	35.00	3.50	0.006	0.013	0.020	√	√
KRG0160800	16	100	8.00	13.60	3.00	40.00	5.00	0.005	0.011	0.018	√	√
KRG0160900	16	100	9.00	15.30	3.30	45.00	5.50	0.005	0.009	0.014	√	√
KRG0161000	16	100	10.00	17.00	3.60	50.00	6.00	0.004	0.007	0.010	√	√
KRG0161100	16	100	11.00	18.70	3.70	55.00	7.00	0.003	0.006	0.009	√	√
KRG0161200	16	100	12.00	20.40	4.20	60.00	7.50	0.003	0.006	0.009	√	√
KRG0161300	16	100	13.00	22.10	4.60	65.00	8.50	0.002	0.006	0.008	√	√
KRG0161400	16	100	14.00	23.80	4.60	70.00	9.00	0.002	0.005	0.007	√	√
KRG0161500	16	100	15.00	25.50	4.60	75.00	10.00	0.002	0.005	0.007	√	√

Note: UL&cUL File No. E138827

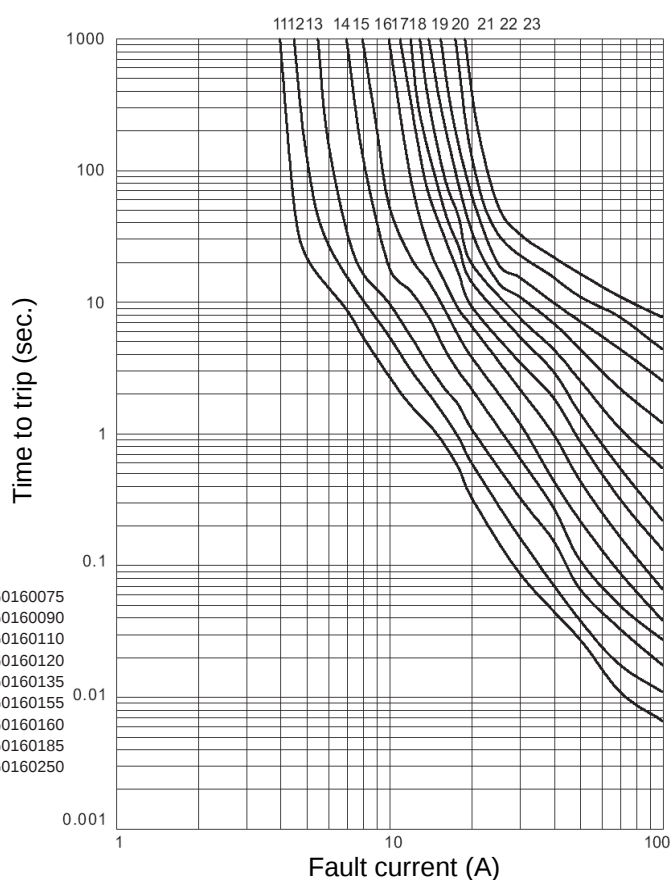
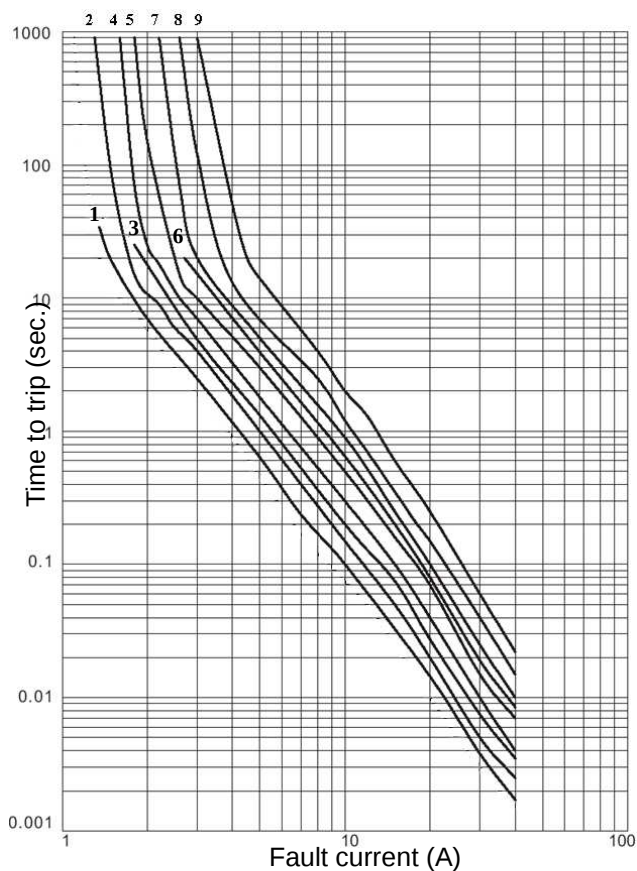
TUV File No. R50066618

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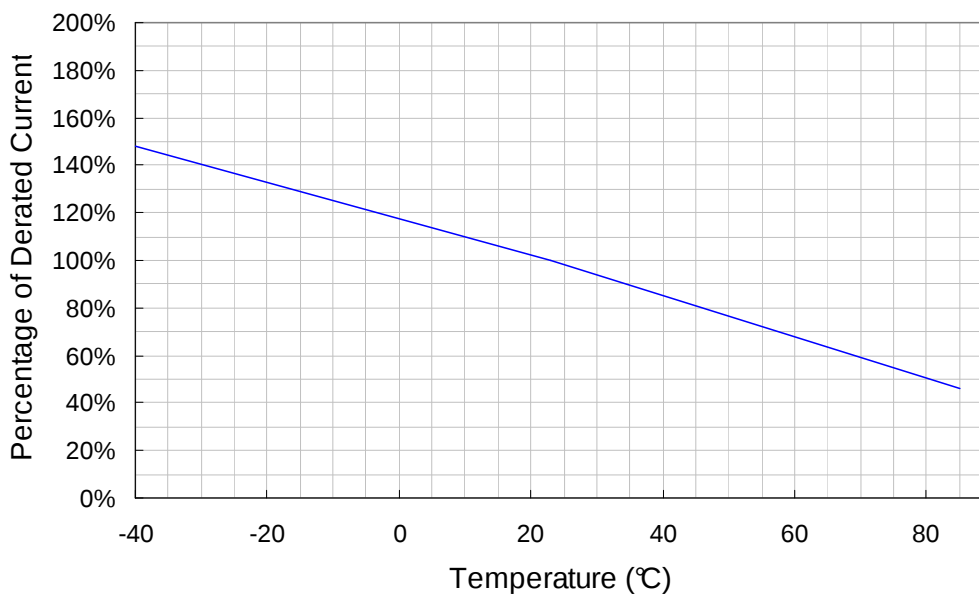
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Typical Time to Trip Curves at 23°C



Thermal Derating Curve

Derating Curves for KRG 016 Series



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■ Reliability

Item	Standard	Test Condition/methods	Criteria
Passive Aging	IEC60738-1	85±5℃, 1000±24hrs	±5% typical resistance change
Humidity storage	Specification Standard	85±5℃, 80~85%RH, 1000±24hrs	±5% typical resistance change
Rapid Change of Temperature	IEC60738-1	85±5/-40±5℃, 10 cycles	±5% typical resistance change
Overload Endurance	UL 1434	V _{max} , 120% I _{max} , 50 cycles V _{max} , 300% I _{trip} , 6000 cycles	No arcing or burring
Trip endurance	UL 1434	V _{max} , I _{trip} ≤ I ≤ I _{max} , 1000±24hrs	No arcing or burring

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■ Packaging

Devices taped using EIA468-B/IEC286-2 standards. See table below and Fig. 1~4 for details.

Dimension description	IEC Mark	Dimension (mm)	Tolerance (mm)
Sprocket hole pitch	P ₀	12.7	±0.3
Ordinate to adjacent component lead KRG0160075~KRG0160250	P ₁	3.6	±1.0
Ordinate to adjacent component lead KRG0160300~KRG0161100	P ₁	4.5	±1.0
Ordinate to adjacent component lead KRG0161200~KRG0161500	P ₁	7.2	±1.0
Device pitch KRG0160075~KRG0160600	P	12.7	±1.0
Device pitch KRG0160700~KRG0161400	P	25.4	±1.0
Device pitch KRG0161500	P	38.1	±1.0
Lead spacing	C	See " Structure and Dimensions"	--
Carrier tape width	W	18	±1.0
Top distance between tape edges	W ₀	3.0	Max
Hold-down tape width	W ₁	12	±1.0
Sprocket hole position	W ₂	9.0	+0.75/-0.5
Abscissa to top KRG0160075~KRG0160600	H ₁	32.2	Max.
Abscissa to top KRG0160700~KRG0161500		47.5	
Abscissa to plane (straight lead)	H	18.0	+2/-0
Abscissa to plane (kinked lead)	H ₀	16.0	±0.5
Sprocket hole diameter	D ₀	4	±0.2
Lead protrusion	L ₁	1	Max.
Tape thickness	t	0.9	Max.
Body lateral deviation	Δh	0	±1.0
Body tape plane deviation	Δp	0	±1.3
Reel width	W ₃	56	Max.
Reel diameter		340	±10
Arbor hole diameter	n0	31	±1
Core diameter	n	80	Min.

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● Taping Specification

Fig.1

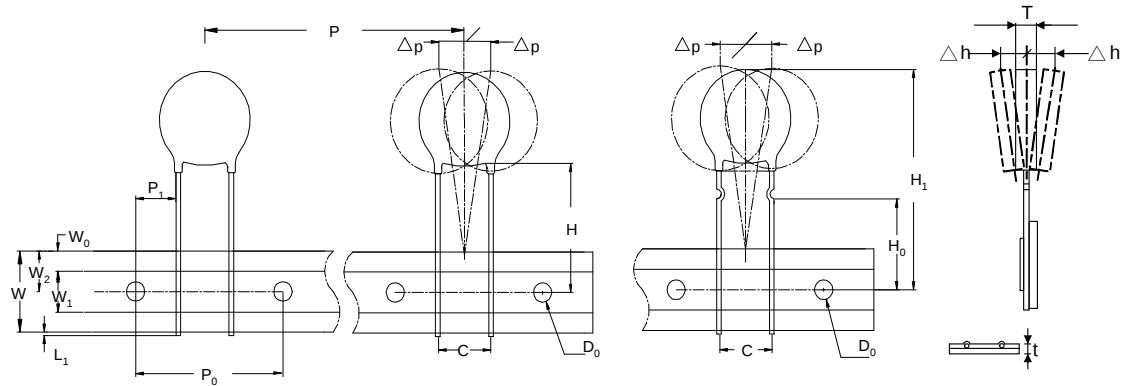


Fig.2

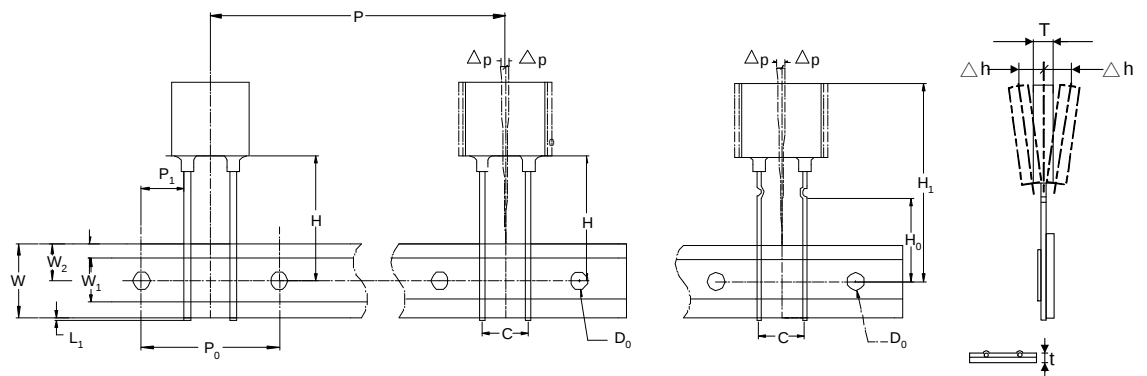
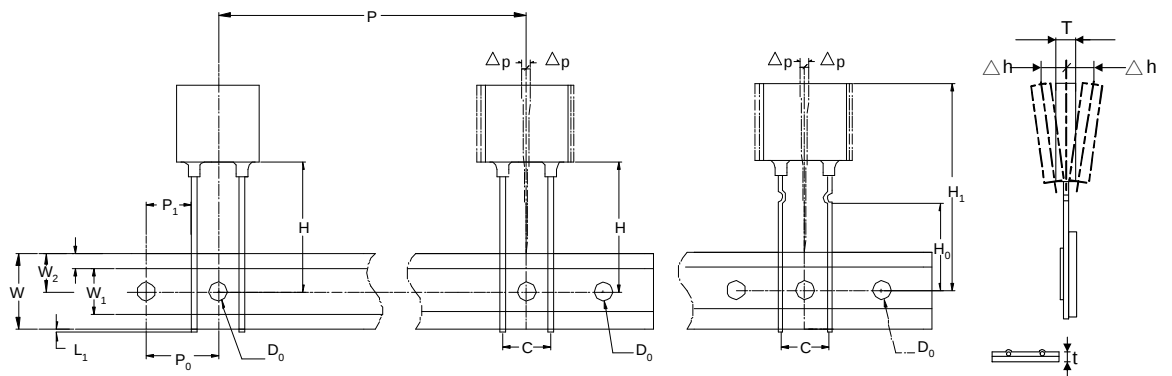
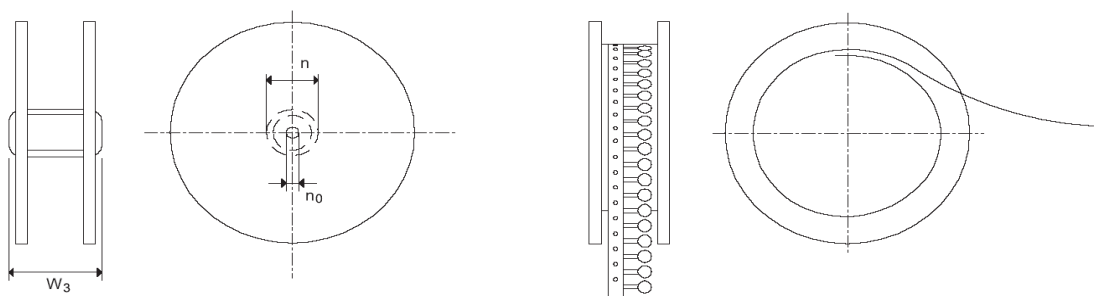


Fig.3



● Reel Specification

Fig.4



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■ Quantity

Bulk packing

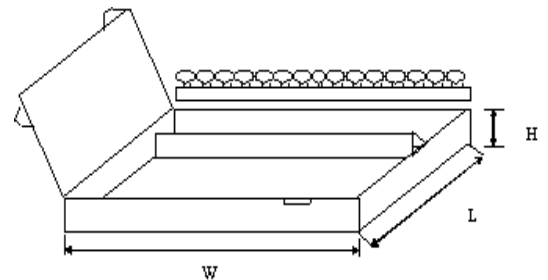
Series	Quantity PCS/Bag
KRG016 (0075~0160)	1000
KRG016 (0185~0900)	500
KRG016 (1000~1500)	250

Reel packing

Series	Quantity PCS/Reel
KRG016 (0075~0185)	3000
KRG016 (0250~0400)	2500
KRG016 (0500~0700)	1500
KRG016 (0800~1500)	1000

Ammo packing

Series	Quantity PCS/Box
KRG016 (0075~0185)	1500
KRG016 (0250~0400)	1500
KRG016 (0500~0700)	1000
KRG016 (0800~1500)	500



Unit: mm

W	L	H
348	185	73

■ Storage Conditions of Products

- Storage Conditions :
 - 1.Storage Temperature : $-10^{\circ}\text{C}\sim+40^{\circ}\text{C}$
 - 2.Relative Humidity : $\leq 75\%\text{RH}$
 3. Keep away from corrosive atmosphere and sunlight.
- Period of Storage : 1 year