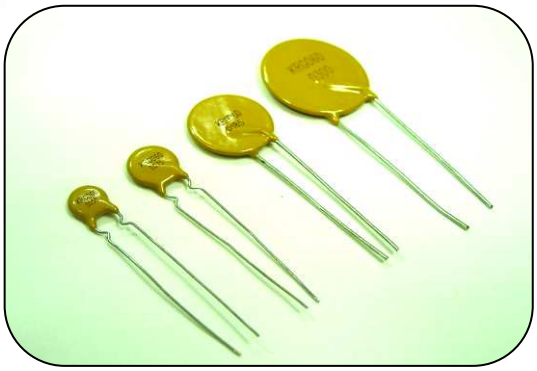
Polymer PTC Resettable Fuse：KRG Series

KRG060 Radial Leaded Type 60V

■ Features

1. RoHS compliant
2. Radial leaded devices
3. Broadest range of resettable devices available in the industry
4. Current ratings from 0.1 to 3.75A
5. Maximum voltage is 60V
6. Operating temperature range : -40 ~ +85℃
7. Agency Recognition :UL /cUL/TUV



■ Recommended Applications

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

■ Part Number Code

K	R	G	0	6	0	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	
K	Thinking PPTC thermistor

Form Factor	
R	Radial

Usage	
G	General
T	Telecom

Max. Operating Voltage	
016	16V
030	30V
060	60V
Note : for telecom with Vmax. interrupt	
250	250V
600	600V

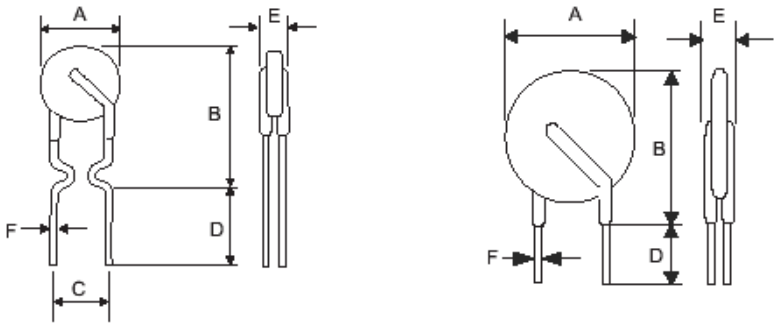
I hold	
0008	0.08A
0090	0.9A
0014	0.14A
0135	1.35A
0170	1.7A
0600	6A
1000	10A
1200	12A

Appearance	
S	Straight lead
I	Inner Kink
F	Y Kink

Packaging	
B	Bulk
R	Taping & Reel

Optional Suffix	
Y	RoHS compliantl

■ Structure and Dimensions



Marking: Device is marked Vmax. operation , I hold

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KRG060 Radial Leaded Type 60V

Part no	A	B	C	D	E	F
	Max.	Max.	Typ.	Typ.	Max.	Typ.
KRG0600010	7.4	12.7	5.0±0.8	10.5±0.5	3.0	0.5±0.02
KRG0600017	7.4	12.7	5.0±0.8	10.5±0.5	3.0	0.5±0.02
KRG0600020	7.4	12.2	5.0±0.8	10.5±0.5	3.0	0.5±0.02
KRG0600025	7.4	12.7	5.0±0.8	10.5±0.5	3.0	0.5±0.02
KRG0600030	7.4	13.0	5.0±0.8	10.5±0.5	3.0	0.5±0.02
KRG0600040	7.6	13.5	5.0±0.8	10.5±0.5	3.0	0.5±0.02
KRG0600050	7.6	13.7	5.0±0.8	10.5±0.5	3.0	0.5±0.02
KRG0600065	9.7	14.5	5.0±0.8	10.5±0.5	3.0	0.5±0.02
KRG0600075	10.4	15.2	5.0±0.8	10.5±0.5	3.0	0.5±0.02
KRG0600090	11.7	15.7	5.0±0.8	10.5±0.5	3.0	0.5±0.02
KRG0600110	13.0	18.0	5.0±0.8	11.0±0.8	3.0	0.8±0.02
KRG0600135	14.5	19.6	5.0±0.8	11.0±0.8	3.0	0.8±0.02
KRG0600160	16.3	21.3	5.0±0.8	11.0±0.8	3.0	0.8±0.02
KRG0600185	17.8	22.9	5.0±0.8	11.0±0.8	3.0	0.8±0.02
KRG0600250	21.3	26.4	10.0±0.8	11.0±0.8	3.0	0.8±0.02
KRG0600300	24.9	30.0	10.0±0.8	11.0±0.8	3.0	0.8±0.02
KRG0600375	28.4	33.5	10.0±0.8	11.0±0.8	3.0	0.8±0.02

■ Electrical Characteristics(23℃)

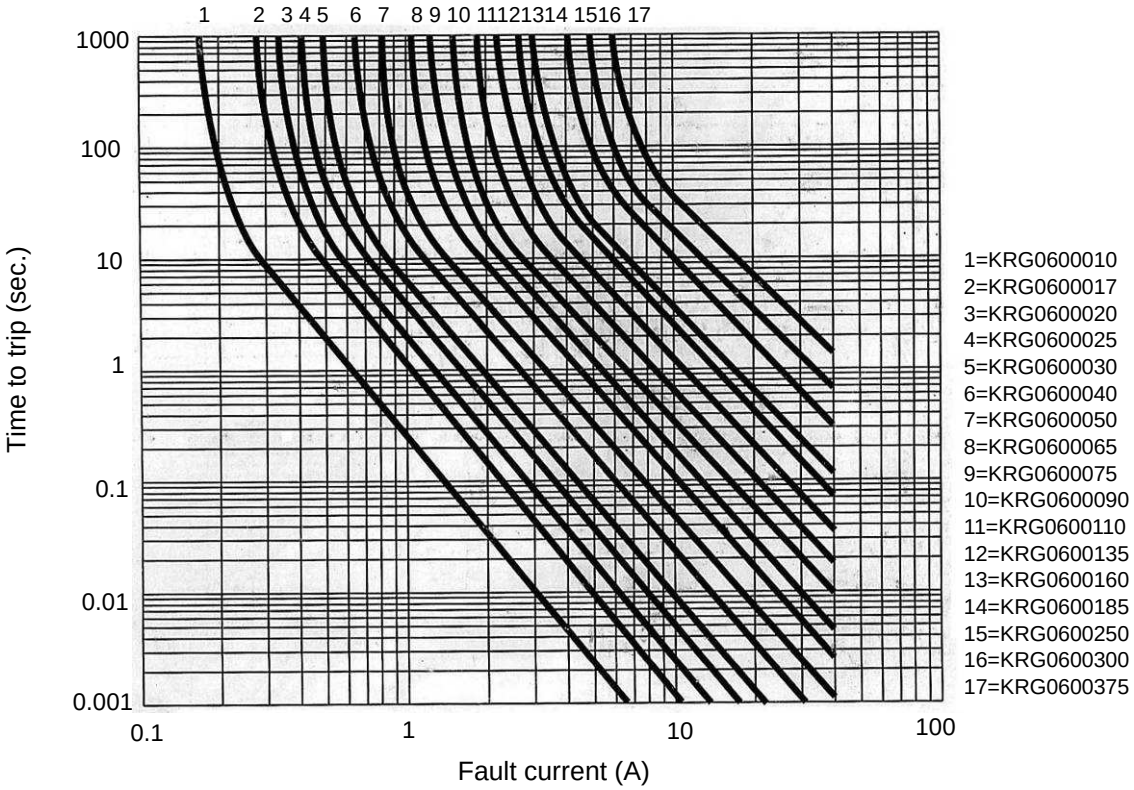
Part no.	Vmax.	Imax.	Ihold @ 23℃	Itrip @ 23℃	Pd (Typ.)	Maximum Time to Trip		Resistance (Ω)			Safety Approvals	
								Initial (Ri)		Post trip (R1)	UL/cUL	TUV
	(V_{dc})	(A)	(A)	(A)	(W)	(A)	(Sec.)	Min.	Max.	Max		
KRG0600010	60	40	0.10	0.20	0.38	0.50	4.0	2.500	4.500	7.50	√	√
KRG0600017	60	40	0.17	0.34	0.48	0.85	3.0	3.300	5.210	8.00	√	√
KRG0600020	60	40	0.20	0.40	0.41	1.00	2.2	1.830	2.750	4.40	√	√
KRG0600025	60	40	0.25	0.50	0.45	1.25	2.5	1.250	1.950	3.00	√	√
KRG0600030	60	40	0.30	0.60	0.49	1.50	3.0	0.880	1.330	2.10	√	√
KRG0600040	60	40	0.40	0.80	0.56	2.00	3.8	0.550	0.860	1.29	√	√
KRG0600050	60	40	0.50	1.00	0.77	2.50	4.0	0.500	0.770	1.17	√	√
KRG0600065	60	40	0.65	1.30	0.88	3.25	5.3	0.310	0.480	0.72	√	√
KRG0600075	60	40	0.75	1.50	0.92	3.75	6.3	0.250	0.400	0.60	√	√
KRG0600090	60	40	0.90	1.80	0.99	4.50	7.2	0.200	0.310	0.47	√	√
KRG0600110	60	40	1.10	2.20	1.50	5.50	8.2	0.150	0.250	0.38	√	√
KRG0600135	60	40	1.35	2.70	1.70	6.75	9.6	0.120	0.190	0.30	√	√
KRG0600160	60	40	1.60	3.20	1.90	8.00	11.4	0.090	0.140	0.22	√	√
KRG0600185	60	40	1.85	3.70	2.10	9.25	12.6	0.080	0.120	0.19	√	√
KRG0600250	60	40	2.50	5.00	2.50	12.50	15.6	0.050	0.080	0.13	√	√
KRG0600300	60	40	3.00	6.00	2.80	15.00	19.8	0.040	0.060	0.10	√	√
KRG0600375	60	40	3.75	7.50	3.20	18.75	24.0	0.030	0.050	0.08	√	√

Note 1: UL&cUL File No. E138827

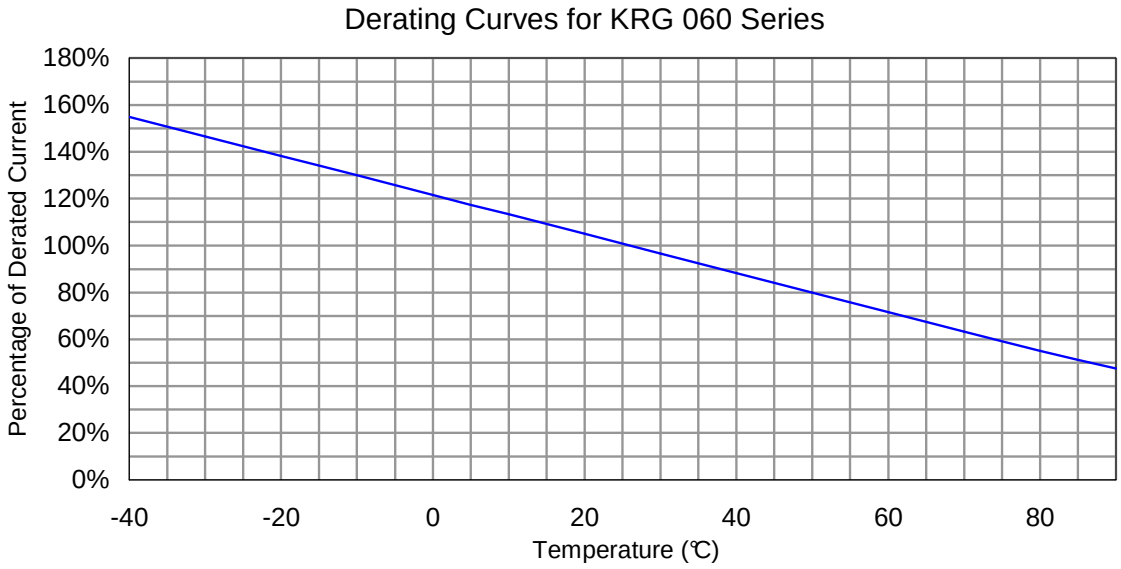
TUV File No. R50066618

Note 2: Other Vmax rating are available upon request.

■ Typical Time to Trip Curves at 23℃



■ Thermal Derating Curve



■ 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	Vmax,120% Imax ,50 cycles Vmax,300% Itrip ,6000 cycles	No arcing or burring
Trip Endurance	UL 1434	Vmax, Itrip≦ I≦Imax , 1000±24hrs	No arcing or burring

■ Packaging

Devices taped using EIA468-B/IEC286-2 standards. See table below and Fig. 1~3 for details.

Dimension description	IEC Mark	Dimension (mm)	Tolerance (mm)
Sprocket hole pitch	P_0	12.7	±0.3
Ordinate to adjacent component lead KRG0600010~KRG0600090	P_1	3.6	±1.0
Ordinate to adjacent component lead KRG0600110~KRG0600185	P_1	3.45	±1.0
Ordinate to adjacent component lead KRG0600250~KRG0600300	P_1	7.3	±1.0
Device pitch KRG0600010~KRG0600090	P	12.7	±1.0
Device pitch KRG0600110~KRG0600300	P	25.4	±1.0
Device pitch KRG0600375	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 KRG0600010~KRG0600090	H_1	32.2	Max.
Abscissa to top KRG0600110~ KRG0600300		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	n_0	31	±1
Core diameter	n	80	Min.

- **Taping Specification**

Fig.1

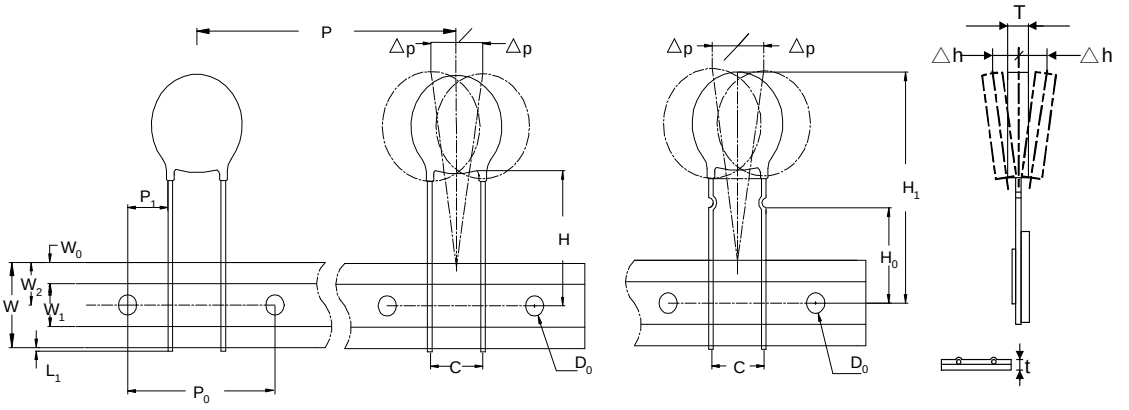
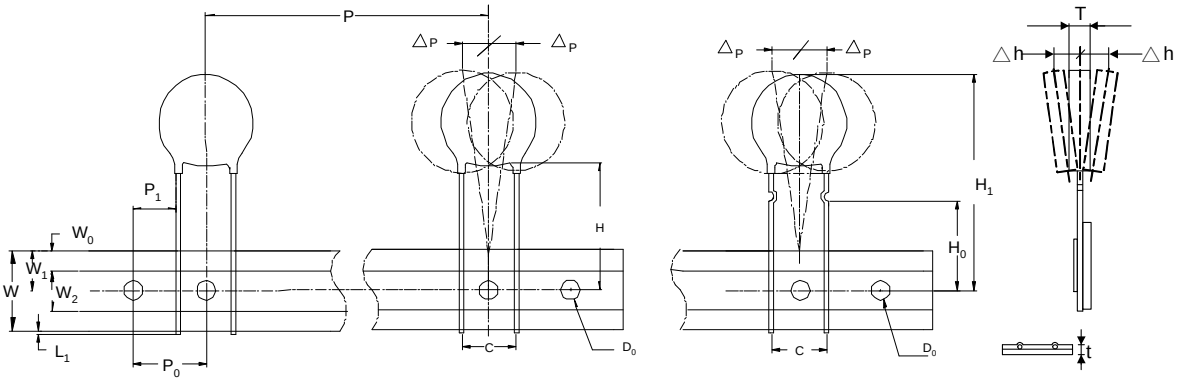


Fig.2

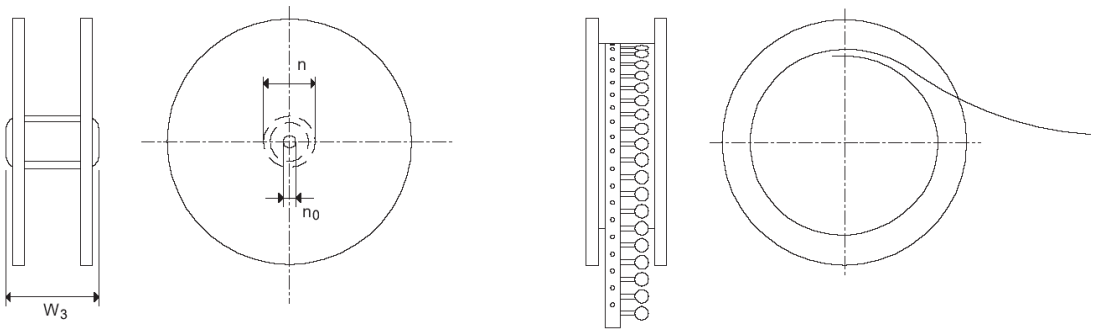


Note:

1. For KRG0600010-KRG0600185, pls see Fig. 1.
2. For KRG0600250-KRG0600375, pls see Fig. 2.

- **Reel Specification**

Fig.3



■ Quantity

Bulk packing

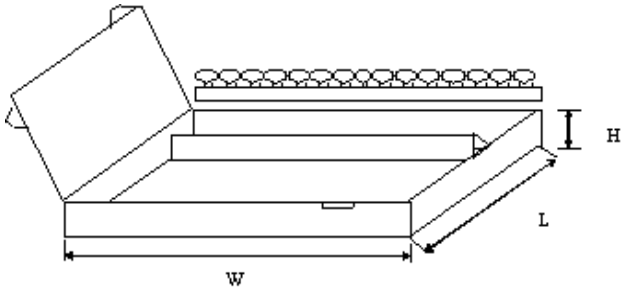
Series	Quantity PCS/Bag
KRG060 (0010~0025)	1000
KRG060 (0030~0185)	500
KRG060 (0250~0375)	250

Reel packing

Series	Quantity PCS/Reel
KRG060 (0010, 0020~0040)	3000
KRG0600017	2500
KRG060 (0050~0090)	2000
KRG060 (0110~0185)	1500
KRG060 (0250~0375)	1000

Ammo packing

Series	Quantity PCS/Box
KRG060 (0010~0040)	2000
KRG060 (0050~0090)	1500
KRG060 (0110~0375)	1000



Unit: mm

W	L	H
348	185	73

■ Storage Conditions of Products

- Storage Conditions：

  1.Storage Temperature ： -10℃~+40℃

  2.Relative Humidity： ≦75%RH

  3. Keep away from corrosive atmosphere and sunlight.

- Period of Storage ：1 year