

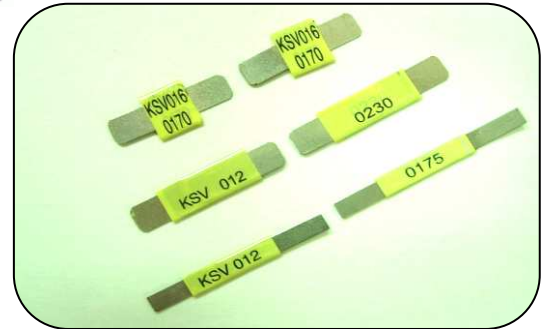
Polymer PTC Resettable Fuse: KSV Series

Strap Type KSV Series



■ Features

1. RoHS compliant
2. Low resistance, low trip temperature
3. Current ratings from 1.7 to 2.4A
4. Maximum voltage :12V and 16V
5. Operating temperature range :
KSV012 : -40 ~ +75°C
KSV016 : -40 ~ +85°C
6. Agency Recognition :UL /cUL/TUV



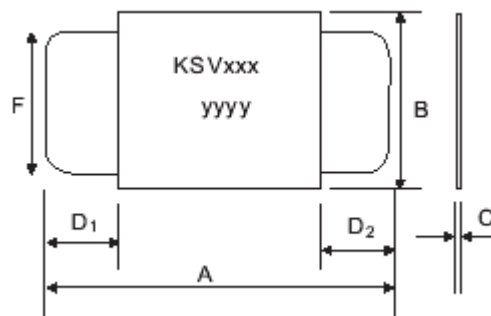
■ Recommended Applications

1. Rechargeable battery packs

■ Part No. Code

K	S	V	0	1	6	0	1	7	0	N	B	Y			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Product code K Thinking PPTC thermistor		Form factor S Strap		Usage M Metal hydride device L Lithium ion device V Very low temp. device H High power device		Vmax. operation 012 12V 016 16V		I hold 0008 0.08A 0090 0.9A 0014 0.14A 0135 1.35A 0170 1.7A 0600 6A 1000 10A 1200 12A		Shape of lead S Slitted lead on single side D Slitted lead on dual side N Noslitted lead		Packaging B Bulk R Taping & Reel		Internal Control Code Y ROHS Control	

■ Dimensions



Marking: xxx=Vmax. operation, yyyy=I hold

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(Unit: mm)

Part no.	A		B		C		D		F	
	Min.	Max.	Min.	Max.	Min.	Max.	D1	C2	Min.	Max.
KSV0120170	20.8	23.2	3.5	3.9	0.6	1.0	4.5~6.5		2.4	2.6
KSV0120175	23.0	24.5	2.9	3.3	0.6	1.0	3.8~5.4	4.7~7.2	2.4	2.6
KSV0120230	20.9	23.1	4.9	5.3	0.6	1.0	4.1~5.8		3.9	4.1
KSV0160170	15.4	17.5	7.0	7.4	0.5	0.8	4.0~6.2		3.9	4.1
KSV0160170X	20.8	22.9	4.9	5.3	0.5	0.8	6.0~8.6		3.9	4.1
KSV0160175	25.8	28.0	3.5	3.9	0.6	0.8	5.0~7.0	9.0~11.0	2.4	2.6
KSV0160175X	31.2	33.4	3.5	3.9	0.6	0.8	7.0~10.0	11.0~14.0	2.4	2.6
KSV0160200	20.9	23.1	4.1	4.5	0.6	0.8	3.0~4.8		2.9	3.1
KSV0160210	20.9	23.1	4.9	5.3	0.6	0.8	4.1~5.8		3.9	4.1
KSV0160240	23.8	26.2	4.9	5.3	0.6	0.8	3.5~5.7		3.9	4.1

Note: X=Special spec. for dimension controlling number

■ 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.		
KSV0120170	12	100	1.70	4.10	1.40	8.50	5.0	0.018	0.032	0.04	√	√
KSV0120175	12	100	1.75	4.20	1.40	8.75	5.0	0.017	0.035	0.062	√	√
KSV0120230	12	100	2.30	5.00	1.40	10.0	5.0	0.012	0.018	0.036	√	√
KSV0160170	16	100	1.70	3.40	1.40	8.50	3.0	0.030	0.052	0.105	√	√
KSV0160170X	16	100	1.70	3.40	1.40	8.50	5.0	0.030	0.052	0.105	√	√
KSV0160175	16	100	1.75	3.60	1.40	8.75	5.0	0.029	0.051	0.102	√	√
KSV0160175X	16	100	1.75	3.60	1.40	8.75	5.0	0.029	0.051	0.102	√	√
KSV0160200	16	100	2.00	4.70	1.50	10.00	5.0	0.022	0.039	0.078	√	√
KSV0160210	16	100	2.10	4.70	1.50	10.00	5.0	0.018	0.030	0.060	√	√
KSV0160240	16	100	2.40	5.90	1.60	12.00	5.0	0.014	0.026	0.052	√	√

Note 1: X=Special spec. for dimension controlling number

Note 2: UL&cUL File No. E138827

TUV File No. R50066599

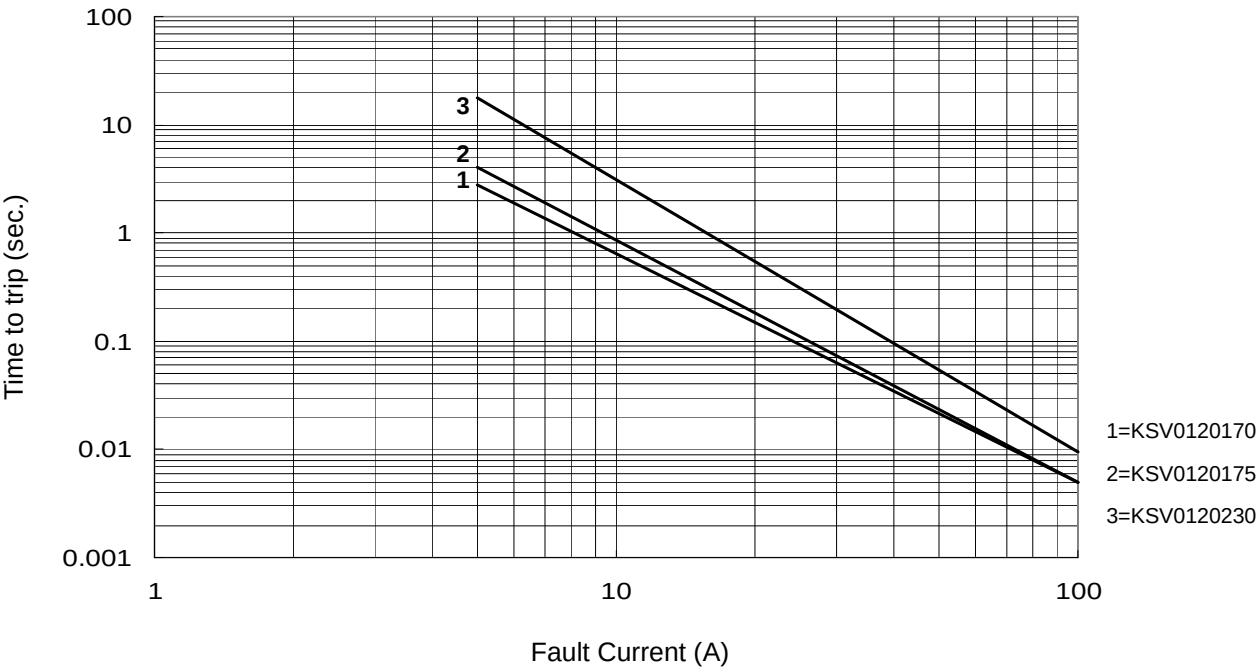
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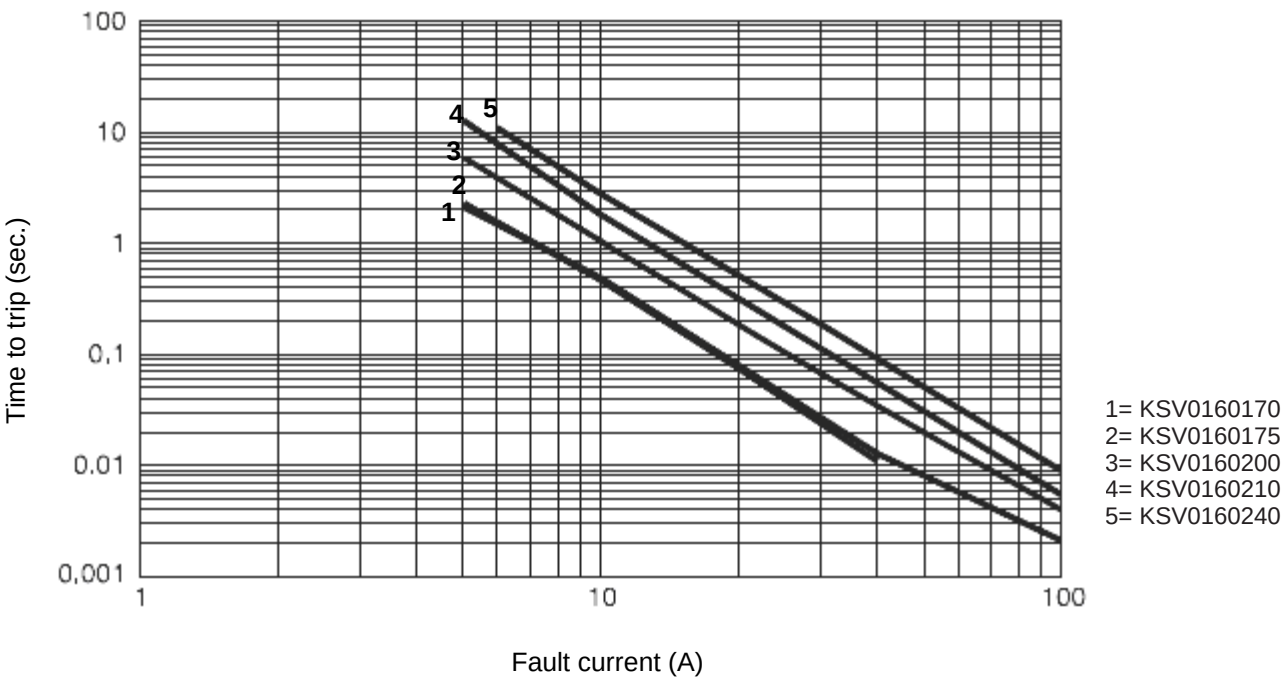


■ Typical time to trip curve at 23°C

● KSV012 Series



● KSV016 Series

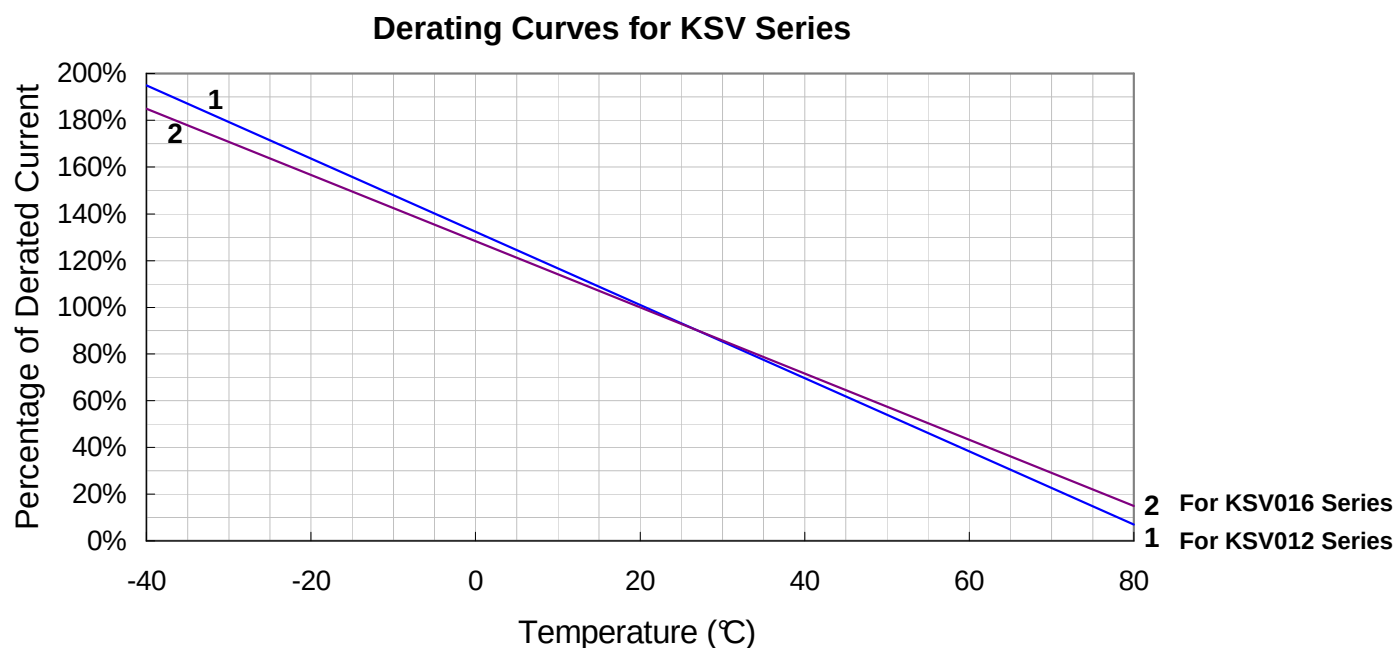


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■ Thermal derating curve



■ Reliability test

Item	Test condition/methods	Criteria
Passive aging	60℃, 1000hrs	±20% typical resistance change for KSV012 ±10% typical resistance change for KSV016
Humidity storage	60℃, 95%RH, 1000hrs for KSV012 40℃, 95%RH, 1344hrs for KSV016	±30% typical resistance change for KSV012 ±5% typical resistance change for KSV016
Thermal shock	85/-40℃, 10 cycles	±10% typical resistance change
Cycle life	50 cycles at a 120% maximum current (Imax) and maximum voltage (Vmax). UL 1434	Normal Appearance
Trip endurance	Vmax, Imax, 48Hrs	Normal Appearance
Steady-state operating life	Vmax, Iss, 1000hrs Mil-Std 750, method 1026	Normal Appearance

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■ Packaging

Bulk packing

Series	Quantity PCS/Bag
KSV	1000

Ammo packing

Series	Quantity PCS/Box
KSV	10000

Carton packing

Series	Quantity PCS/Box
KSV	60000

■ Storage condition of products

(I) Storage Conditions :

- 1.Storage Temperature : -10℃ ~+40℃
- 2.Relative humidity : $\leq 75\%RH$
- 3.Thermistors must be kept away from sunlight and stored in a non-corrosive atmosphere.

(II) Period of Storage : 1 year