

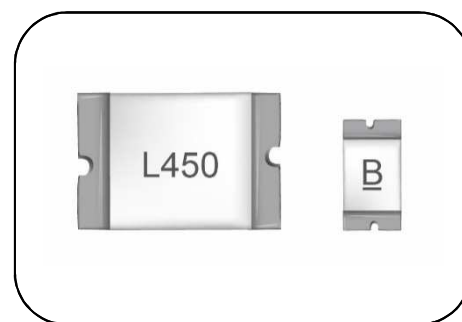
PPTC- Polymer PTC Resettable Fuse: KML Series

SMD Low Resistance Type



■ Features

1. RoHS & Halogen-Free (HF) compliant
2. EIA size: 0603, 0805, 1206, 1210, 1812
3. Hold current ratings from 0.5A to 9.0A
4. Vmax: 6V-12V
5. Small footprint
6. Ultra low resistance
7. Fast time to trip
8. Operating & storage temperature range: -40°C ~+85°C
9. Agency Approval: UL / cUL / TUV



■ Recommended Applications

1. USB, HDMI, IEEE 1394 interface
2. PC, Motherboard, NB, Tablet
3. Protection for lithium ion battery of cell phone
4. Digital cameras
5. Telecommunication
6. Consumer device

■ Part Number Code

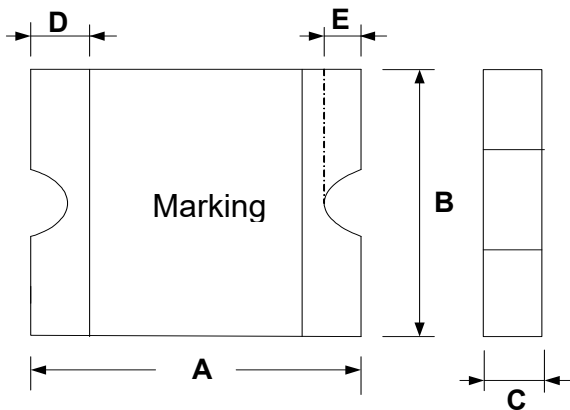
K		M		L		3		S		1		7		5		R		Y																													
1		2		3		4		5		6		7		8		9		10		11		12		13																							
Product Code <table><tr><td>K</td><td>THINKING Polymer PTC Resettable Fuse</td></tr></table>		K	THINKING Polymer PTC Resettable Fuse	Type <table><tr><td>ML</td><td>SMD Low Resistance Type</td></tr></table>		ML	SMD Low Resistance Type	Dimension <table><tr><td>1S</td><td>0603</td></tr><tr><td>2S</td><td>0805</td></tr><tr><td>3S</td><td>1206</td></tr><tr><td>4S</td><td>1210</td></tr><tr><td>5S</td><td>1812</td></tr></table>		1S	0603	2S	0805	3S	1206	4S	1210	5S	1812	I hold <table><tr><td>050</td><td>0.5A</td></tr><tr><td>100</td><td>1.0A</td></tr><tr><td>400</td><td>4.0A</td></tr><tr><td>750</td><td>7.5A</td></tr><tr><td>900</td><td>9.0A</td></tr></table>		050	0.5A	100	1.0A	400	4.0A	750	7.5A	900	9.0A	Packing <table><tr><td>R</td><td>Tape & Reel</td></tr></table>		R	Tape & Reel	Optional Suffix <table><tr><td>Y</td><td colspan="5">RoHS & HF Compliant</td></tr></table>						Y	RoHS & HF Compliant				
		K	THINKING Polymer PTC Resettable Fuse																																												
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PPTC- Polymer PTC Resettable Fuse: KML Series

SMD Low Resistance Type



■ Structure & Dimensions



(Unit: mm)

Part No.		A		B		C		D		E	
		(Min.)	(Max.)	(Min.)	(Max.)	(Min.)	(Max.)	(Min.)	(Max.)	(Min.)	(Max.)
KML1S050	KML1S050-8	1.40	1.80	0.60	1.00	0.30	0.65	0.13	0.50	0.05	0.40
KML1S075	KML1S075-8					0.30	0.65				
KML1S100	KML1S100-8					0.30	0.65				
KML1S150	KML1S150-8					0.50	0.80				
KML1S175	KML1S175-8					0.50	0.80				
KML1S200	-					0.50	0.80				
KML2S075	KML2S075-12	2.00	2.20	1.20	1.50	0.40	0.70	0.15	0.55	0.05	0.45
KML2S110	KML2S110-12					0.40	0.70				
KML2S150	KML2S150-12					0.50	0.88				
KML2S175	KML2S175-12					0.50	0.88				
KML2S200	-					0.50	0.88				
KML2S260	-					0.50	0.88				
KML2S300	-					0.50	1.20				
KML2S350	-					0.60	1.20				
KML2S400	-					0.60	1.20				
KML3S075	KML3S075-12	3.00	3.50	1.50	1.80	0.40	0.70	0.13	0.75	0.08	0.45
KML3S110	KML3S110-12					0.40	0.70				
KML3S150	KML3S150-12					0.40	0.70				
KML3S175	-					0.60	1.20				
KML3S200	KML3S200-12					0.60	1.20				
KML3S260	KML3S260-12					0.60	1.20				
KML3S300	KML3S300-12					0.60	1.20				
KML3S350	KML3S350-12					0.60	1.20				
KML3S380	KML3S380-12					0.60	1.20				

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■ Structure & Dimensions

(Unit: mm)

Part No.		A		B		C		D		E	
		(Min.)	(Max.)	(Min.)	(Max.)	(Min.)	(Max.)	(Min.)	(Max.)	(Min.)	(Max.)
KML3S400	KML3S400-12	3.00	3.50	1.50	1.80	0.60	1.20	0.13	0.75	0.08	0.45
KML3S450	KML3S450-12					0.60	1.20				
KML3S500	KML3S500-12					0.60	1.20				
KML3S550	-					0.60	1.20				
KML3S600	-					0.60	1.20				
KML4S175	KML4S175-12	3.00	3.43	2.35	2.80	0.40	0.70	0.13	0.75	0.08	0.50
KML4S200	KML4S200-12					0.40	0.70				
KML4S260	KML4S260-12					0.40	0.70				
KML4S300	KML4S300-12					0.60	1.20				
KML4S350	KML4S350-12					0.60	1.20				
KML4S380	KML4S380-12					0.60	1.20				
KML4S400	-					0.60	1.20				
KML4S450	-					0.60	1.20				
KML4S500	-					0.60	1.20				
KML4S550	-					0.60	1.20				
KML4S600	-					0.60	1.20				
KML4S650	-					0.60	1.20				
KML4S700	-					0.60	1.20				
KML4S750	-					0.80	1.40				
KML4S800	-					0.80	1.50				
KML4S850	-					0.80	1.50				
KML4S900	-					0.80	1.50				
KML5S190	KML5S190-12	4.37	4.73	3.07	3.41	0.40	0.70	0.20	1.20	0.15	0.65
KML5S260	-					0.40	0.70				
KML5S270	KML5S270-12					0.40	0.70				
KML5S300	KML5S300-12					0.40	0.70				
KML5S350	KML5S350-12					0.40	0.70				
KML5S370	KML5S370-12					0.40	0.70				
KML5S400	KML5S400-12					0.40	0.70				
KML5S450	KML5S450-12					0.60	1.20				
KML5S500	KML5S500-12					0.60	1.20				
KML5S550	-					0.60	1.20				
KML5S600	-					0.60	1.20				
KML5S650	-					0.60	1.20				
KML5S700	-					0.60	1.20				
KML5S750	-					0.80	1.40				

PPTC- Polymer PTC Resettable Fuse: KML Series



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Electrical Characteristics at 23°C

Part No.	Marking	Vmax. (V _{dc})	Imax. (A)	Ihold (A)	Itrip (A)	Pd (Max.) (W)	Maximum Time to Trip		Resistance		Safety Approvals	
							Current (A)	Time (Sec.)	Initial Ri	Post Trip R1	UL/cUL	TUV
									Min.(Ω)	Max.(Ω)		
KML1S050	a	6	50	0.50	1.00	0.6	8	0.1	0.070	0.350	✓	✓
KML1S050-8	a	8	50	0.50	1.00	0.6	8	0.1	0.070	0.350	✓	-
KML1S075	b	6	50	0.75	1.50	0.6	8	0.2	0.050	0.250	✓	✓
KML1S075-8	b	8	50	0.75	1.50	0.6	8	0.2	0.050	0.250	✓	-
KML1S100	c	6	50	1.00	1.80	0.6	8	0.3	0.040	0.120	✓	✓
KML1S100-8	c	8	50	1.00	1.80	0.6	8	0.3	0.040	0.120	✓	-
KML1S150	d	6	50	1.50	3.00	1.0	8	0.5	0.007	0.080	✓	✓
KML1S150-8	d	8	50	1.50	3.00	1.0	8	0.5	0.007	0.080	✓	-
KML1S175	e	6	50	1.75	3.50	1.0	8	0.6	0.005	0.060	✓	✓
KML1S175-8	e	8	50	1.75	3.50	1.0	8	0.6	0.005	0.060	✓	-
KML1S200	f	6	50	2.00	4.00	1.0	8	1.0	0.003	0.045	✓	✓
KML2S075	<u>A</u>	6	50	0.75	1.50	0.6	8	0.2	0.040	0.160	✓	✓
KML2S075-12	<u>A</u>	12	50	0.75	1.50	1.2	8	0.2	0.040	0.160	✓	✓
KML2S110	<u>B</u>	6	50	1.10	1.80	0.6	8	0.3	0.030	0.130	✓	✓
KML2S110-12	<u>B</u>	12	50	1.10	1.80	1.2	8	0.3	0.030	0.130	✓	✓
KML2S150	<u>C</u>	6	50	1.50	3.00	0.6	8	0.5	0.015	0.065	✓	✓
KML2S150-12	<u>C</u>	12	50	1.50	3.00	1.2	8	0.5	0.015	0.065	✓	✓
KML2S175	<u>D</u>	6	50	1.75	3.50	0.6	8	0.6	0.005	0.055	✓	✓
KML2S175-12	<u>D</u>	12	50	1.75	3.50	1.2	8	0.6	0.005	0.055	✓	✓
KML2S200	E	6	50	2.00	4.00	1.0	8	1.0	0.005	0.045	✓	✓
KML2S260	F	6	50	2.60	5.00	1.0	8	4.0	0.003	0.035	✓	✓
KML2S300	K	6	50	3.00	6.00	1.0	8	5.0	0.003	0.030	✓	✓
KML2S350	L	6	50	3.50	7.00	1.2	8	6.0	0.002	0.020	✓	✓
KML2S400	N	6	50	4.00	9.00	1.2	20	2.0	0.001	0.016	✓	✓
KML3S075	La	6	50	0.75	1.50	0.8	8	0.3	0.017	0.180	✓	✓
KML3S075-12	La	12	50	0.75	1.50	1.2	8	0.3	0.017	0.180	✓	✓
KML3S110	Lb	6	50	1.10	2.20	0.8	8	0.3	0.015	0.130	✓	✓
KML3S110-12	Lb	12	50	1.10	2.20	1.2	8	0.3	0.015	0.130	✓	✓
KML3S150	Lc	6	50	1.50	3.00	0.8	8	0.3	0.010	0.080	✓	✓
KML3S150-12	Lc	12	50	1.50	3.00	1.2	8	0.3	0.010	0.080	✓	✓
KML3S175	L3	6	50	1.75	3.50	0.8	8	0.4	0.005	0.045	✓	✓
KML3S200	L7	6	50	2.00	4.00	0.8	8	0.5	0.005	0.040	✓	✓
KML3S200-12	L7	12	50	2.00	4.00	1.2	8	0.5	0.005	0.040	✓	✓

Note: UL&cUL File No: E138827 / TUV File No:R50311748

PPTC- Polymer PTC Resettable Fuse: KML Series

SMD Low Resistance Type



Electrical Characteristics at 23°C

Part No.	Marking	Vmax.	Imax.	Ihold	Itrip	Pd (Max.)	Maximum Time to Trip		Resistance		Safety Approvals	
		(V _{dc})	(A)	(A)	(A)	(W)	Current (A)	Time (Sec.)	Initial Ri	Post Trip R1	UL/cUL	TUV
									Min.(Ω)	Max.(Ω)		
KML3S260	L8	6	50	2.60	5.00	0.8	8.0	4.0	0.003	0.030	√	√
KML3S260-12	L8	12	50	2.60	5.00	1.2	8.0	4.0	0.003	0.030	√	√
KML3S300	L9	6	100	3.00	6.00	0.8	8.0	4.0	0.003	0.026	√	√
KML3S300-12	L9	12	50	3.00	6.00	1.5	8.0	4.0	0.003	0.026	√	√
KML3S350	L1	6	50	3.50	7.00	0.8	8.0	5.0	0.003	0.018	√	√
KML3S350-12	L1	12	50	3.50	7.00	1.5	8.0	5.0	0.003	0.018	√	-
KML3S380	L2	6	50	3.80	8.00	0.8	8.0	5.0	0.002	0.014	√	√
KML3S380-12	L2	12	50	3.80	8.00	1.5	8.0	5.0	0.002	0.014	√	-
KML3S400	L5	6	50	4.00	8.00	0.8	20.0	2.0	0.001	0.014	√	√
KML3S400-12	L5	12	50	4.00	8.00	1.5	20.0	2.0	0.001	0.014	√	-
KML3S450	L6	6	50	4.50	9.00	0.8	22.0	2.0	0.001	0.014	√	√
KML3S450-12	L6	12	50	4.50	9.00	1.5	22.0	2.0	0.001	0.014	√	-
KML3S500	Le	6	50	5.00	10.00	0.8	25.0	2.0	0.001	0.013	√	√
KML3S500-12	Le	12	50	5.00	10.00	1.5	25.0	2.0	0.001	0.013	√	-
KML3S550	Lf	6	50	5.50	11.00	0.8	27.5	2.0	0.001	0.013	√	√
KML3S600	Lg	6	50	6.00	12.00	0.8	30.0	2.0	0.001	0.012	√	√
KML4S175	LA	6	50	1.75	3.50	0.8	8.0	2.5	0.006	0.040	√	√
KML4S175-12	LA	12	50	1.75	3.50	1.2	8.0	2.5	0.006	0.040	√	√
KML4S200	LB	6	50	2.00	4.00	0.8	8.0	3.0	0.005	0.024	√	√
KML4S200-12	LB	12	50	2.00	4.00	1.2	8.0	3.0	0.005	0.024	√	√
KML4S260	LE	6	50	2.60	5.00	0.8	8.0	4.0	0.003	0.020	√	√
KML4S260-12	LE	12	50	2.60	5.00	1.2	8.0	4.0	0.003	0.020	√	√
KML4S300	LG	6	50	3.00	6.00	0.8	15.0	2.0	0.003	0.020	√	√
KML4S300-12	LG	12	50	3.00	6.00	1.5	15.0	2.0	0.003	0.020	√	√
KML4S350	LN	6	50	3.50	7.00	0.8	17.5	2.0	0.003	0.018	√	√
KML4S350-12	LN	12	50	3.50	7.00	1.5	17.5	2.0	0.003	0.018	√	√
KML4S380	LK	6	50	3.80	8.00	0.8	19.0	2.0	0.003	0.016	√	√
KML4S380-12	LK	12	50	3.80	8.00	1.5	19.0	2.0	0.003	0.016	√	√
KML4S400	LM	6	50	4.00	8.00	0.8	20.0	2.0	0.002	0.014	√	√
KML4S450	LP	6	50	4.50	9.00	0.8	22.5	2.0	0.002	0.014	√	√

Note: UL&cUL File No.: E138827 / TUV File No.: 50311748

PPTC- Polymer PTC Resettable Fuse: KML Series

SMD Low Resistance Type



Electrical Characteristics at 23°C

Part No.	Marking	Vmax.	Imax.	Ihold	Itrip	Pd (Max.)	Maximum Time to Trip		Resistance		Safety Approvals	
		(V _{dc})	(A)	(A)	(A)	(W)	Current	Time	Initial Ri	Post Trip R1	UL/cUL	TUV
							(A)	(Sec.)	Min.(Ω)	Max.(Ω)		
KML4S500	LQ	6	50	5.0	10	0.8	25.0	2.0	0.002	0.012	√	√
KML4S550	LR	6	50	5.5	11	0.8	27.5	2.0	0.002	0.011	√	√
KML4S600	LS	6	50	6.0	12	0.8	30.0	2.0	0.001	0.010	√	√
KML4S650	LV	6	50	6.5	13	0.8	32.5	2.0	0.001	0.009	√	√
KML4S700	LX	6	50	7.0	14	1.0	35.0	2.0	0.001	0.008	√	√
KML4S750	LY	6	50	7.5	15	1.0	37.5	2.0	0.001	0.007	√	√
KML4S800	LH	6	100	8.0	16	1.0	40.0	2.0	0.001	0.007	√	√
KML4S850	LW	6	100	8.5	17	1.4	42.5	2.0	0.001	0.006	√	√
KML4S900	LT	6	100	9.0	18	1.5	45.0	2.0	0.001	0.006	√	√
KML5S190	L190	6	50	1.9	4.9	1.0	9.5	4.5	0.003	0.025	√	√
KML5S190-12	L190	12	50	1.9	4.9	1.5	9.5	4.5	0.003	0.025	√	√
KML5S260	L260	6	50	2.6	6.0	1.0	13.0	2.0	0.003	0.024	√	√
KML5S270	L270	6	50	2.7	6.2	1.0	13.0	2.0	0.003	0.023	√	√
KML5S270-12	L270	12	50	2.7	6.2	1.5	13.0	2.0	0.003	0.023	√	√
KML5S300	L300	6	50	3.0	6.2	1.0	8.0	5.0	0.003	0.021	√	√
KML5S300-12	L300	12	50	3.0	6.2	2.0	8.0	5.0	0.003	0.021	√	√
KML5S350	L350	6	50	3.5	8.1	1.0	8.0	5.0	0.003	0.020	√	√
KML5S350-12	L350	12	50	3.5	8.1	2.0	8.0	5.0	0.003	0.020	√	√
KML5S370	L370	6	50	3.7	9.1	1.0	18.5	2.0	0.003	0.018	√	√
KML5S370-12	L370	12	50	3.7	9.1	2.0	18.5	2.0	0.003	0.018	√	√
KML5S400	L400	6	50	4.0	8.0	1.0	20.0	2.0	0.003	0.017	√	√
KML5S400-12	L400	12	50	4.0	8.0	2.0	20.0	2.0	0.003	0.017	√	-
KML5S450	L450	6	50	4.5	9.0	1.0	22.5	2.0	0.001	0.014	√	√
KML5S450-12	L450	12	50	4.5	9.0	2.0	22.5	2.0	0.001	0.014	√	-
KML5S500	L500	6	50	5.0	10.0	1.0	25.0	2.0	0.001	0.013	√	√
KML5S500-12	L500	12	50	5.0	10.0	2.0	25.0	2.0	0.001	0.013	√	-
KML5S550	L550	6	50	5.5	11.0	1.0	27.5	2.0	0.001	0.008	√	√
KML5S600	L600	6	50	6.0	12.0	1.0	30.0	2.0	0.001	0.008	√	√
KML5S650	L650	6	50	6.5	13.0	1.0	32.5	2.0	0.001	0.008	√	√
KML5S700	L700	6	50	7.0	14.0	1.0	35.0	2.0	0.001	0.007	√	√
KML5S750	L750	6	50	7.5	15.0	1.0	37.5	2.0	0.001	0.006	√	√

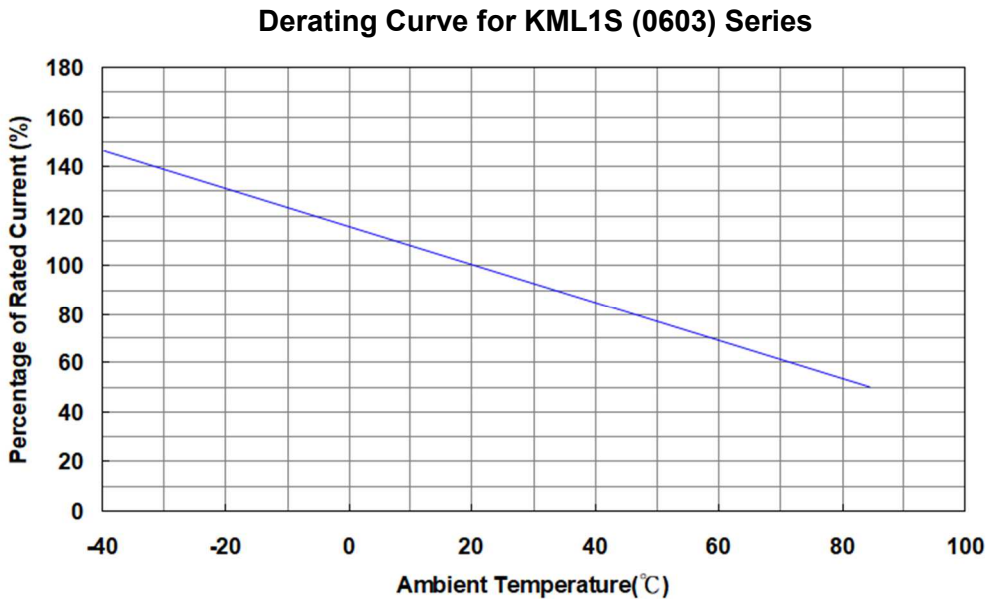
Note: UL&cUL File No.: E138827 / TUV File No.: R50311748

PPTC- Polymer PTC Resettable Fuse: KML Series

SMD Low Resistance Type



■ KML1S (0603) Series Ihold & Itrip Thermal Derating Curve



■ KML1S (0603) Series Ihold Thermal Derating Chart

(Unit: A)

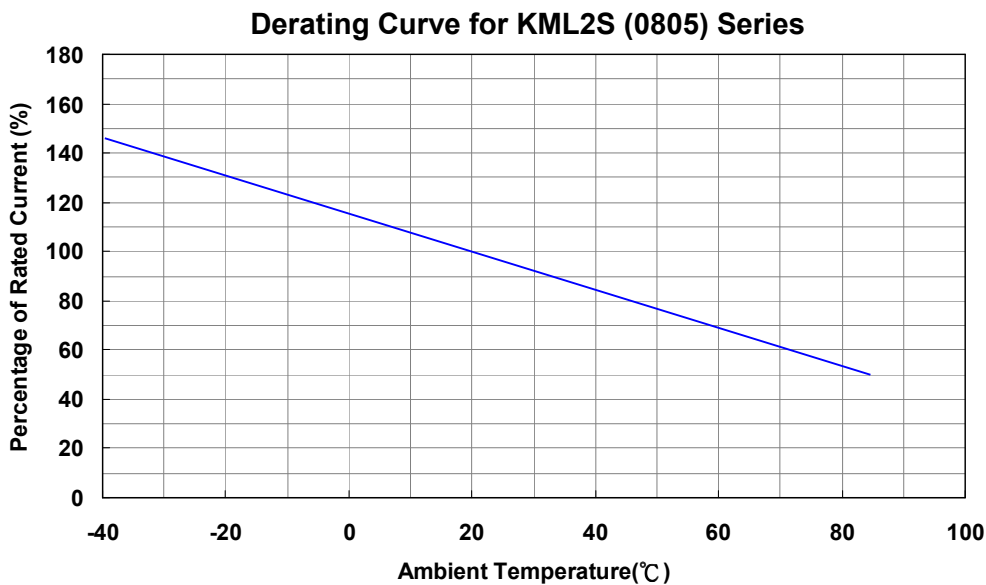
Part No.		Ambient Operation Temperature							
		-40°C	-20°C	0°C	23°C	40°C	60°C	70°C	85°C
KML1S050	KML1S050-8	0.81	0.71	0.62	0.50	0.42	0.30	0.24	0.16
KML1S075	KML1S075-8	1.24	1.07	0.94	0.75	0.62	0.47	0.37	0.21
KML1S100	KML1S100-8	1.36	1.25	1.10	1.00	0.83	0.65	0.52	0.33
KML1S150	KML1S150-8	2.37	2.07	1.80	1.50	1.25	0.93	0.74	0.50
KML1S175	KML1S175-8	2.57	2.23	1.99	1.75	1.49	1.24	1.00	0.80
KML1S200	-	2.80	2.60	2.30	2.00	1.70	1.45	1.15	1.05

PPTC- Polymer PTC Resettable Fuse: KML Series

SMD Low Resistance Type



■ KML2S (0805) Series Ihold & Itrip Thermal Derating Curve



■ KML2S (0805) Series Ihold Thermal Derating Chart

(Unit: A)

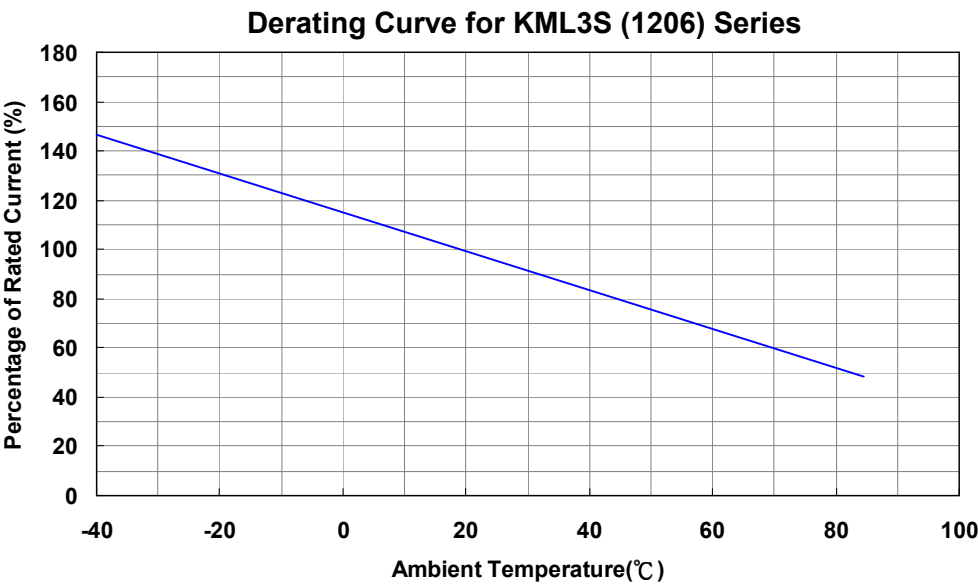
Part No.		Ambient Operation Temperature							
		-40℃	-20℃	0℃	23℃	40℃	60℃	70℃	85℃
KML2S075	KML2S075-12	1.24	1.07	0.94	0.75	0.62	0.47	0.37	0.21
KML2S110	KML2S110-12	1.93	1.65	1.38	1.10	0.83	0.55	0.41	0.23
KML2S150	KML2S150-12	2.37	2.07	1.80	1.50	1.25	0.93	0.74	0.50
KML2S175	KML2S175-12	2.57	2.33	2.07	1.75	1.49	1.24	1.00	0.91
KML2S200	-	3.10	2.75	2.40	2.00	1.65	1.15	0.95	0.65
KML2S260	-	3.80	3.30	2.80	2.60	2.20	1.78	1.55	1.05
KML2S300	-	4.55	4.15	3.65	3.00	2.55	2.00	1.65	1.20
KML2S350	-	5.60	4.38	3.81	3.50	2.74	2.28	1.93	1.37
KML2S400	-	6.40	5.00	4.35	4.00	3.13	2.60	2.20	1.57

PPTC- Polymer PTC Resettable Fuse: KML Series

SMD Low Resistance Type



■ KML3S (1206) Series Ihold & Itrip Thermal Derating Curve



■ KML3S (1206) Series Ihold Thermal Derating Chart

(Unit: A)

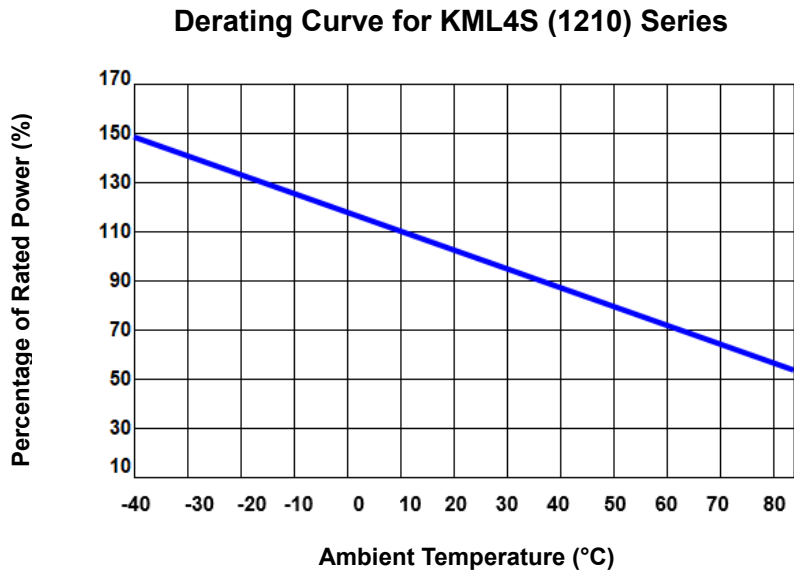
Part no		Ambient Operation Temperature							
		-40°C	-20°C	0°C	23°C	40°C	60°C	70°C	85°C
KML3S075	KML3S075-12	1.10	1.00	0.89	0.75	0.64	0.53	0.43	0.39
KML3S110	KML3S110-12	1.62	1.46	1.30	1.10	0.94	0.78	0.63	0.57
KML3S150	KML3S150-12	2.21	2.00	1.77	1.50	1.28	1.07	0.86	0.78
KML3S175	-	2.57	2.33	2.07	1.75	1.49	1.16	0.90	0.80
KML3S200	KML3S200-12	3.30	2.90	2.50	2.00	1.62	1.24	1.00	0.85
KML3S260	KML3S260-12	3.71	3.42	3.01	2.60	2.08	1.49	1.30	0.89
KML3S300	KML3S300-12	4.41	3.99	3.54	3.00	2.55	2.13	1.71	1.56
KML3S350	KML3S350-12	5.15	4.66	4.13	3.50	2.98	2.49	2.00	1.82
KML3S380	KML3S380-12	5.59	5.05	4.48	3.80	3.20	2.29	2.05	1.98
KML3S400	KML3S400-12	5.71	5.26	4.63	4.00	3.30	2.60	2.16	2.05
KML3S450	KML3S450-12	6.62	5.99	5.31	4.50	3.83	3.20	2.57	2.10
KML3S500	KML3S500-12	7.20	6.60	5.80	5.00	4.25	3.40	3.00	2.34
KML3S550	-	8.00	7.15	6.35	5.50	4.90	4.10	3.70	3.05
KML3S600	-	8.65	7.80	7.00	6.00	5.30	4.50	4.05	3.40

PPTC- Polymer PTC Resettable Fuse: KML Series

SMD Low Resistance Type



■ KML4S (1210) Series Ihold & Itrip Thermal Derating Curve



■ KML4S (1210) Series Ihold Thermal Derating Chart

(Unit: A)

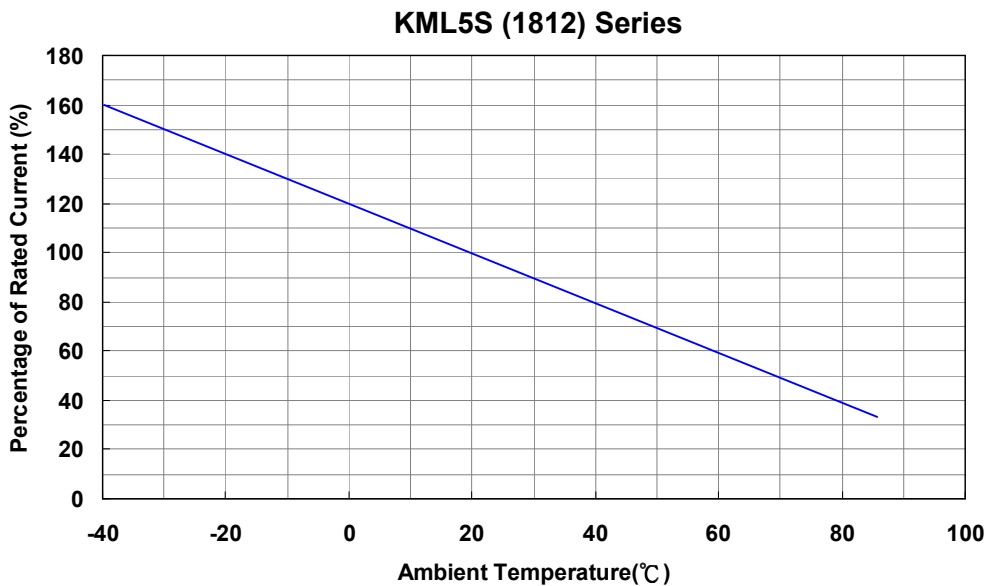
Part no		Ambient Operation Temperature							
		-40℃	-20℃	0℃	23℃	40℃	60℃	70℃	85℃
KML4S175	KML4S175-12	2.57	2.33	2.07	1.75	1.49	1.24	1.00	0.78
KML4S200	KML4S200-12	3.26	2.87	2.50	2.00	1.70	1.29	1.09	0.91
KML4S260	KML4S260-12	3.82	3.46	3.07	2.60	2.21	1.85	1.48	1.35
KML4S300	KML4S300-12	4.41	3.99	3.54	3.00	2.55	2.00	1.71	1.40
KML4S350	KML4S350-12	5.00	4.60	4.05	3.50	2.80	2.13	1.60	1.50
KML4S380	KML4S380-12	5.71	5.26	4.52	3.80	3.15	2.29	2.00	1.60
KML4S400	-	6.00	5.28	4.63	4.00	3.20	2.39	2.09	1.73
KML4S450	-	6.62	5.99	5.31	4.50	3.83	3.20	2.57	2.34
KML4S500	-	7.30	6.60	5.65	5.00	4.27	3.50	3.00	2.55
KML4S550	-	8.00	7.15	6.35	5.50	4.90	4.10	3.70	3.05
KML4S600	-	8.65	7.80	7.00	6.00	5.30	4.50	4.05	3.40
KML4S650	-	9.15	8.15	7.40	6.50	5.50	4.90	3.60	2.70
KML4S700	-	9.85	8.80	7.95	7.00	5.95	5.30	3.90	2.90
KML4S750	-	10.25	9.15	8.45	7.50	6.75	6.15	4.70	3.65
KML4S800	-	11.76	10.56	9.28	8.00	6.81	5.68	5.10	4.16
KML4S850	-	12.41	11.14	9.83	8.50	7.31	6.12	5.53	4.60
KML4S900	-	13.05	11.70	10.40	9.00	8.00	6.75	6.05	5.00

PPTC- Polymer PTC Resettable Fuse: KML Series

SMD Low Resistance Type



■ KML5S (1812)Series Ihold & Itrip Thermal Derating Curve



■ KML5S (1812) Series Ihold Thermal Derating Chart

(Unit: A)

Part no		Ambient Operation Temperature							
		-40°C	-20°C	0°C	23°C	40°C	60°C	70°C	85°C
KML5S190	KML5S190-12	3.00	2.58	2.22	1.90	1.49	1.14	0.93	0.61
KML5S260	-	3.82	3.46	3.07	2.60	2.16	1.54	1.48	0.93
KML5S270	KML5S270-12	3.86	3.55	3.12	2.70	2.21	1.85	1.35	1.03
KML5S300	KML5S300-12	4.41	3.99	3.54	3.00	2.55	2.10	1.71	1.12
KML5S350	KML5S350-12	5.43	4.73	4.13	3.50	2.80	2.13	1.75	1.56
KML5S370	KML5S370-12	5.44	4.92	4.37	3.70	3.15	2.63	2.11	1.92
KML5S400	KML5S400-12	5.88	5.28	4.64	4.00	3.41	2.84	2.55	2.08
KML5S450	KML5S450-12	6.62	5.99	5.31	4.50	3.83	3.20	2.57	2.34
KML5S500	KML5S500-12	7.35	6.60	5.85	5.00	4.31	3.55	3.15	2.55
KML5S550	-	8.12	7.32	6.40	5.50	4.85	3.88	3.40	2.55
KML5S600	-	8.88	8.00	6.99	6.00	5.15	5.00	3.45	2.60
KML5S650	-	9.65	8.66	7.58	6.50	5.55	4.50	3.65	2.75
KML5S700	-	10.62	9.30	8.15	7.00	5.98	5.05	3.95	3.00
KML5S750	-	11.35	9.95	8.70	7.50	6.75	5.75	4.95	3.55

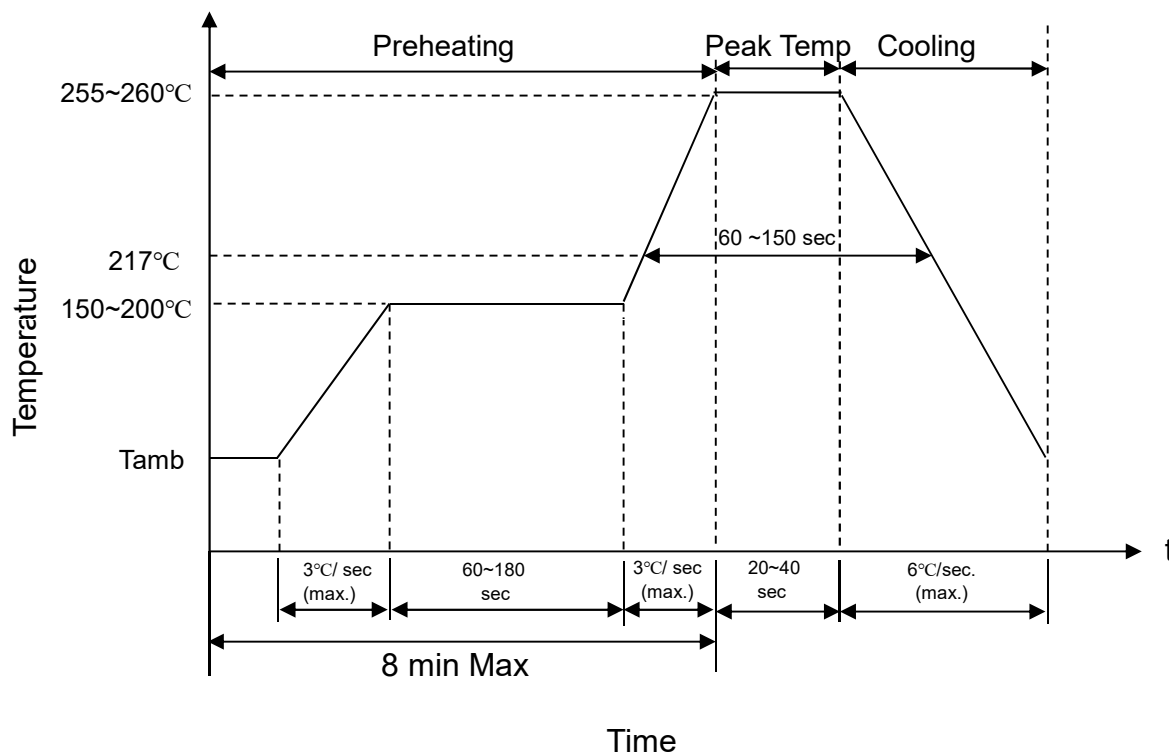
PPTC- Polymer PTC Resettable Fuse: KML Series

SMD Low Resistance Type



■ Recommended Soldering Condition

● IR-Reflow Soldering Profile



- Welding method of the product is reflow welding, and wave soldering is not recommended.
- Recommended reflow methods: IR, vapor phase, and hot air oven.
- Devices can be cleaned by using standard industry methods and solvents.

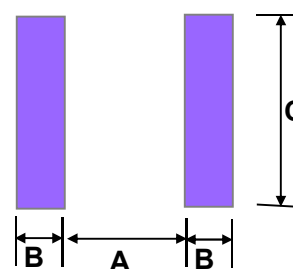
Note:

- If reflow temperature exceeds the recommended profile, devices may not meet the performance requirements.
- Devices are not designed to be wave soldered to the bottom side of the board.

■ Recommended Soldering Pad Dimensions (Nominal)

(Unit: mm)

Series	Size	A	B	C
KML1S	0603	0.8	1.00	1.00
KML2S	0805	1.20	1.00	1.50
KML3S	1206	2.00	1.00	1.90
KML4S	1210	2.00	1.00	2.80
KML5S	1812	3.45	1.78	3.50



PPTC- Polymer PTC Resettable Fuse: KML Series

SMD Low Resistance Type

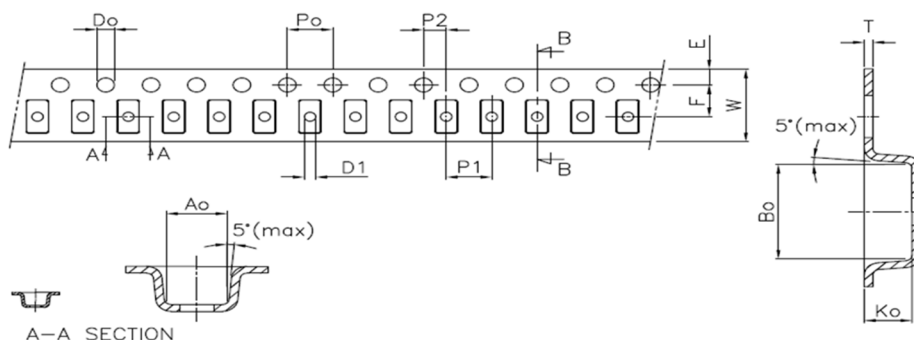


■ Reliability

Item	Standard	Test Condition / Methods	Criteria
Passive Aging	IEC 60738-1	85±5°C, 1000±24hrs	±10% typical resistance change
Humidity Aging	Specification Standard	85±5°C, 80~85%RH, 100±5hrs	±15% typical resistance change
Rapid Change of Temperature	IEC 60738-1	85±5/-40±5°C, 20 cycles Duration:30min	-30% typical resistance change
Overload and Endurance Test	UL 1434	Vmax, 120% Imax, 50 cycles Vmax, 300% Itrip, 6000 cycles	No visible damage
Aging Test	UL 1434	Vmax, Itrip≤IImax, 1000±24hrs	No visible damage
Solderability	IEC 60068-2-58	245 ± 5°C, 3 ± 0.3sec	At least 95% of terminal electrode is covered by new solder.
Resistance to Soldering Heat	IEC 60068-2-58	260 ± 5°C, 10 ± 1sec	Rf<R1, No visible damage

■ Package

● Taping Specification



◆ KML1S Series: SMD 0603 Type

For KML1S050 ~ KML1S100

(Unit: mm)

Index Size	A ₀ ±0.05	B ₀ ±0.05	K ₀ ±0.05	P ₀ ±0.10	P ₁ ±0.10	P ₂ ±0.05	T ±0.05	E ±0.10	F ±0.05	D ₀ +0.10/ -0	D ₁ +0.10/ -0.05	W +0.30 -0.10	10P ₀ ±0.20
0603	1.10	1.85	0.60	4.00	4.00	2.00	0.20	1.75	3.50	1.50	0.50	8.00	40.00

For KML1S150 ~ KML1S200

(Unit: mm)

Index Size	A ₀ ±0.05	B ₀ ±0.05	K ₀ ±0.05	P ₀ ±0.10	P ₁ ±0.10	P ₂ ±0.05	T ±0.05	E ±0.10	F ±0.05	D ₀ ±0.05	D ₁ +0.10/ -0	W ±0.10	10P ₀ ±0.20
0603	1.10	1.95	0.85	4.00	4.00	2.00	0.20	1.75	3.50	1.55	0.50	8.00	40.00

PPTC- Polymer PTC Resettable Fuse: KML Series

SMD Low Resistance Type



◆ KML2S Series: SMD 0805 Type

(Unit: mm)

Index Size	A ₀	B ₀	K ₀	P ₀	P ₁	P ₂	T	E	F	D ₀	D ₁	W	10P ₀
0805	±0.10	±0.10	±0.050	±0.08	±0.10	±0.05	±0.10	±0.10	±0.05	±0.05	Min.	±0.10	±0.20
	1.60	2.30	0.90	4.00	4.00	2.00	0.25	1.75	3.50	1.55	1.00	8.00	40.00

◆ KML3S Series: SMD 1206 Type

For KML3S075~KML3S150

(Unit: mm)

Index Size	A ₀	B ₀	K ₀	P ₀	P ₁	P ₂	T	E	F	D ₀	D ₁	W	10P ₀
1206	±0.10	±0.10	±0.05	±0.10	±0.10	±0.10	±0.05	±0.10	±0.10	±0.05	Min.	±0.30	±0.20
	1.85	3.45	0.85	4.00	4.00	2.00	0.23	1.75	3.50	1.55	1.00	8.00	40.00

For KML3S175~ KML3S600

(Unit: mm)

Index Size	A ₀	B ₀	K ₀	P ₀	P ₁	P ₂	T	E	F	D ₀	D ₁	W	10P ₀
1206	±0.10	±0.10	±0.05	±0.10	±0.10	±0.10	±0.05	±0.10	±0.10	±0.05	Min.	±0.30	±0.20
	1.95	3.55	1.40	4.00	4.00	2.00	0.23	1.75	3.50	1.55	1.00	8.00	40.00

◆ KML4S Series: SMD 1210 Type

(Unit: mm)

Index Size	A ₀	B ₀	K ₀	P ₀	P ₁	P ₂	T	E	F	D ₀	D ₁	W	10P ₀
1210	±0.10	±0.10	±0.05	±0.10	±0.10	±0.10	±0.05	±0.10	±0.10	±0.05	Min.	±0.30	±0.20
	2.82	3.63	1.47	4.00	4.00	2.00	0.23	1.75	3.50	1.55	1.00	8.00	40.00

◆ KML5S Series: SMD 1812 Type

For KML5S190~ KML5S400

(Unit: mm)

Index Size	A ₀	B ₀	K ₀	P ₀	P ₁	P ₂	T	E	F	D ₀	D ₁	W	10P ₀
1812	±0.10	±0.10	±0.05	±0.10	±0.10	±0.10	±0.03	±0.10	±0.10	±0.05	Min.	±0.30	±0.20
	3.50	5.00	0.90	4.00	8.00	2.00	0.25	1.75	5.50	1.55	1.50	12.00	40.00

For KML5S450~ KML5S750

(Unit: mm)

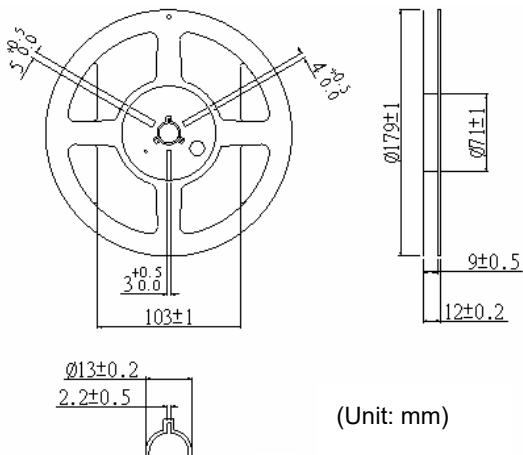
Index Size	A ₀	B ₀	K ₀	P ₀	P ₁	P ₂	T	E	F	D ₀	D ₁	W	10P ₀
1812	±0.10	±0.10	±0.05	±0.10	±0.10	±0.10	±0.05	±0.10	±0.10	±0.05	Min.	±0.30	±0.20
	3.56	4.94	1.70	4.00	8.00	2.00	0.25	1.75	5.50	1.55	1.50	12.00	40.00

PPTC- Polymer PTC Resettable Fuse: KML Series

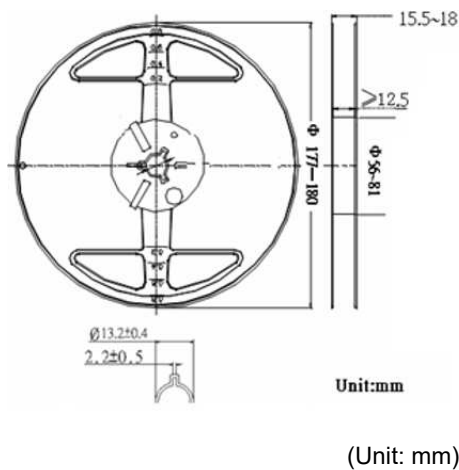
SMD Low Resistance Type



Quantity



Size	Part No.	Quantity (pcs/reel)	Carton Size (mm)	Quantity (reel/carton)
0603	KML1S050~100	6,000	350*350*290	28
	KML1S150~200	5,000		
0805	KML2S	4,000		
1206	KML3S075~150	5,000		
	KML3S175~600	2,500		
1210	KML4S	3,000		



Size	Part no	Quantity (pcs/reel)	Carton Size (mm)	Quantity (reel/carton)
1812	KML5S190~400	2,000	350*350*290	24
	KML5S450~750	1,000		

Warehouse Storage Conditions of Products

- Storage Conditions:
 - Storage Temperature: -10°C ~+ 40°C
 - Relative humidity: ≤ 75%RH
 - Thermistors must be kept away from sunlight and stored in a non-corrosive atmosphere.
- Period of Storage: 1 year