

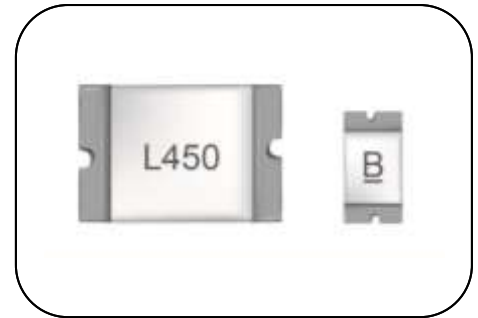
Polymer PTC Resettable Fuse: KLM Series

SMD Low Resistance Type



■ Features

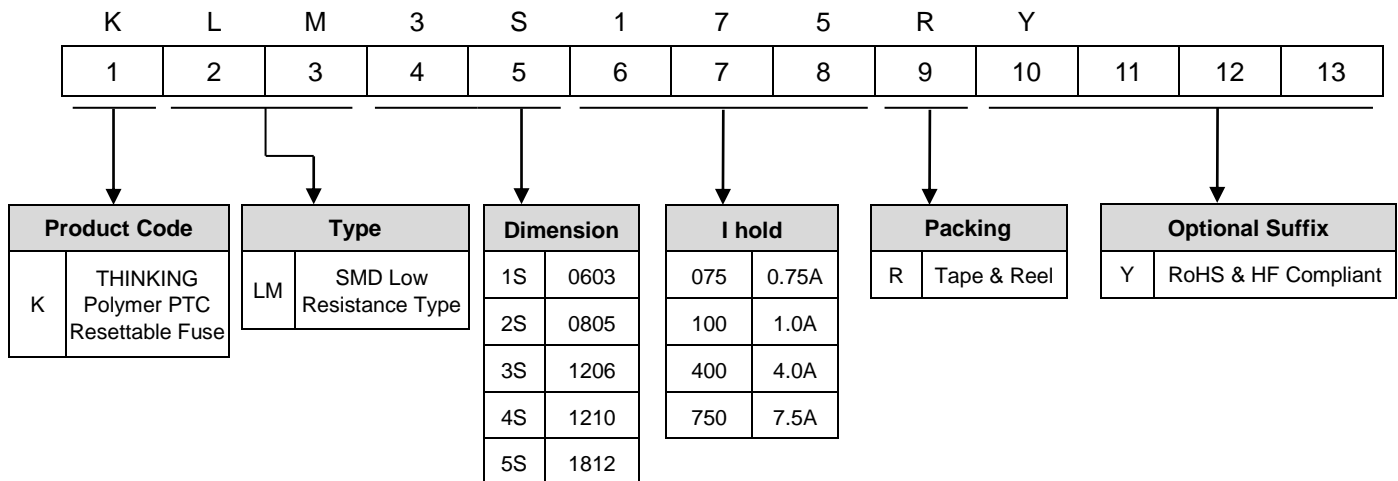
1. RoHS & Halogen-Free (HF) compliant
2. EIA size: 0603, 0805, 1206, 1210, 1812
3. Hold current ratings from 0.5A to 7.5A
4. Vmax: 6V, 12V
5. Small footprint
6. Ultra low resistance
7. Fast time to trip
8. Operating & storage temperature range: -40~+85°C
9. Agency Approval: UL / cUL / TUV



■ 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

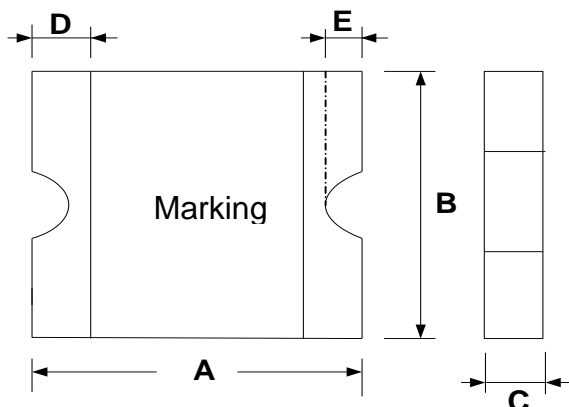


Polymer PTC Resettable Fuse: KLM Series

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.)
KLM1S050	KLM1S050-8	1.40	1.80	0.60	1.00	0.3	0.65	0.125	0.50	0.05	0.40
KLM1S075	KLM1S075-8					0.3	0.65				
KLM1S100	KLM1S100-8					0.3	0.65				
KLM1S150	KLM1S150-8					0.5	0.8				
KLM1S175	KLM1S175-8					0.5	0.8				
KLM1S200						0.5	0.8				
KLM2S075	KLM2S075-12	2.00	2.20	1.20	1.50	0.4	0.7	0.150	0.55	0.05	0.45
KLM2S110	KLM2S110-12					0.4	0.7				
KLM2S150	KLM2S150-12					0.5	0.88				
KLM2S175	KLM2S175-12					0.5	0.88				
KLM2S200						0.5	0.88				
KLM2S260						0.5	0.88				
KLM2S300						0.5	1.2				
KLM2S350						0.6	1.2				
KLM2S400						0.6	1.2				
KLM3S075	KLM3S075-12	3.00	3.50	1.50	1.80	0.4	0.7	0.125	0.75	0.08	0.45
KLM3S110	KLM3S110-12					0.4	0.7				
KLM3S150	KLM3S150-12					0.4	0.7				
KLM3S175	KLM3S175-12					0.6	1.2				
KLM3S200	KLM3S200-12					0.6	1.2				
KLM3S260	KLM3S260-12					0.6	1.2				
KLM3S300	KLM3S300-12					0.6	1.2				
KLM3S350	KLM3S350-12					0.6	1.2				
KLM3S380	KLM3S380-12					0.6	1.2				

Polymer PTC Resettable Fuse: KLM Series

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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.)
KLM3S400	KLM3S400-12	3.00	3.50	1.50	1.80	0.6	1.2	0.125	0.75	0.08	0.45
KLM3S450	KLM3S450-12					0.6	1.2				
KLM3S500	KLM3S500-12					0.6	1.2				
KLM3S550						0.6	1.2				
KLM3S600						0.6	1.2				
KLM4S175	KLM4S175-12	3.00	3.43	2.35	2.80	0.4	0.7	0.125	0.75	0.08	0.50
KLM4S200	KLM4S200-12					0.4	0.7				
KLM4S260	KLM4S260-12					0.4	0.7				
KLM4S300	KLM4S300-12					0.6	1.2				
KLM4S350	KLM4S350-12					0.6	1.2				
KLM4S380	KLM4S380-12					0.6	1.2				
KLM4S400	KLM4S400-12					0.6	1.2				
KLM4S450	KLM4S450-12					0.6	1.2				
KLM4S500	KLM4S500-12					0.6	1.2				
KLM4S550						0.6	1.2				
KLM4S600						0.6	1.2				
KLM4S650						0.6	1.2				
KLM4S700						0.6	1.2				
KLM4S750						0.8	1.4				
KLM5S190	KLM5S190-12	4.37	4.73	3.07	3.41	0.4	0.7	0.20	1.20	0.15	0.65
KLM5S260	KLM5S260-12					0.4	0.7				
KLM5S270	KLM5S270-12					0.4	0.7				
KLM5S300	KLM5S300-12					0.4	0.7				
KLM5S350	KLM5S350-12					0.4	0.7				
KLM5S370	KLM5S370-12					0.4	0.7				
KLM5S400	KLM5S400-12					0.4	0.7				
KLM5S450	KLM5S450-12					0.6	1.2				
KLM5S500	KLM5S500-12					0.6	1.2				
KLM5S550						0.6	1.2				
KLM5S600						0.6	1.2				
KLM5S650						0.6	1.2				
KLM5S700						0.6	1.2				
KLM5S750						0.8	1.4				

Polymer PTC Resettable Fuse: KLM Series

SMD Low Resistance Type



■ 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 Min. (Ω)	Post Trip R1 Max(Ω)	UL/cUL	TUV
KLM1S050	a	6	50	0.5	1	0.6	8	0.1	0.07	0.35	√	√
KLM1S050-8	a	8	50	0.5	1	0.6	8	0.1	0.07	0.35	√	
KLM1S075	b	6	50	0.75	1.5	0.6	8	0.2	0.05	0.25	√	√
KLM1S075-8	b	8	50	0.75	1.5	0.6	8	0.2	0.05	0.25	√	
KLM1S100	c	6	50	1	1.8	0.6	8	0.3	0.04	0.12	√	√
KLM1S100-8	c	8	50	1	1.8	0.6	8	0.3	0.04	0.12	√	
KLM1S150	d	6	50	1.5	3	1	8	0.5	0.007	0.08	√	√
KLM1S150-8	d	8	50	1.5	3	1	8	0.5	0.007	0.08	√	
KLM1S175	e	6	50	1.75	3.5	1	8	0.6	0.005	0.06	√	√
KLM1S175-8	e	8	50	1.75	3.5	1	8	0.6	0.005	0.06	√	
KLM1S200	f	6	50	2	4	1	8	1	0.003	0.045	√	√
KLM2S075	<u>A</u>	6	50	0.75	1.5	0.6	8	0.2	0.040	0.160	√	√
KLM2S075-12	<u>A</u>	12	50	0.75	1.5	1.2	8	0.2	0.040	0.160	√	√
KLM2S110	<u>B</u>	6	50	1.1	1.8	0.6	8	0.3	0.030	0.130	√	√
KLM2S110-12	<u>B</u>	12	50	1.1	1.8	1.2	8	0.3	0.030	0.130	√	√
KLM2S150	<u>C</u>	6	50	1.5	3.0	0.6	8	0.5	0.015	0.065	√	√
KLM2S150-12	<u>C</u>	12	50	1.5	3.0	1.2	8	0.5	0.015	0.065	√	√
KLM2S175	<u>D</u>	6	50	1.75	3.5	0.6	8	0.6	0.005	0.055	√	√
KLM2S175-12	<u>D</u>	12	50	1.75	3.5	1.2	8	0.6	0.005	0.055	√	√
KLM2S200	E	6	50	2	4	1	8	1	0.005	0.045	√	√
KLM2S260	F	6	50	2.6	5	1	8	4	0.003	0.035	√	√
KLM2S300	K	6	50	3	6	1	8	5	0.003	0.03	√	√
KLM2S350	L	6	50	3.5	7	1.2	8	6	0.002	0.02	√	√
KLM2S400	N	6	50	4	9	1.2	20	2	0.001	0.016	√	√
KLM3S075	La	6	50	0.75	1.5	0.8	8	0.3	0.017	0.18	√	√
KLM3S075-12	La	12	50	0.75	1.5	1.2	8	0.3	0.017	0.18	√	√
KLM3S110	Lb	6	50	1.1	2.2	0.8	8	0.3	0.015	0.13	√	√
KLM3S110-12	Lb	12	50	1.1	2.2	1.2	8	0.3	0.015	0.13	√	√
KLM3S150	Lc	6	50	1.5	3	0.8	8	0.3	0.010	0.08	√	√
KLM3S150-12	Lc	12	50	1.5	3	1.2	8	0.3	0.010	0.08	√	√
KLM3S175	L3	6	50	1.75	3.5	0.8	8	0.4	0.005	0.045	√	√
KLM3S175-12	L3	12	50	1.75	3.5	1.2	8	0.4	0.005	0.045		
KLM3S200	L7	6	50	2	4	0.8	8	0.5	0.005	0.04	√	√
KLM3S200-12	L7	12	50	2	4	1.2	8	0.5	0.005	0.04	√	√

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

Polymer PTC Resettable Fuse: KLM Series

SMD Low Resistance Type



■ Electrical Characteristics at 23°C

Part No.	Marking	Vmax.	I _{max.}	I _{hold}	I _{trip}	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)		
KLM3S260	L8	6	50	2.6	5	0.8	8	4	0.003	0.03	√	√
KLM3S260-12	L8	12	50	2.6	5	1.2	8	4	0.003	0.03	√	√
KLM3S300	L9	6	50	3	6	0.8	8	4	0.003	0.026	√	√
KLM3S300-12	L9	12	50	3	6	1.5	8	4	0.003	0.026	√	√
KLM3S350	L1	6	50	3.5	7	0.8	8	5	0.003	0.018	√	√
KLM3S350-12	L1	12	50	3.5	7	1.5	8	5	0.003	0.018	√	
KLM3S380	L2	6	50	3.8	8	0.8	8	5	0.002	0.014	√	√
KLM3S380-12	L2	12	50	3.8	8	1.5	8	5	0.002	0.014	√	
KLM3S400	L5	6	50	4	8	0.8	20	2	0.001	0.014	√	√
KLM3S400-12	L5	12	50	4	8	1.5	20	2	0.001	0.014	√	
KLM3S450	L6	6	50	4.5	9	0.8	22	2	0.001	0.014	√	√
KLM3S450-12	L6	12	50	4.5	9	1.5	22	2	0.001	0.014	√	
KLM3S500	Le	6	50	5	10	0.8	25	2	0.001	0.013	√	√
KLM3S500-12	Le	12	50	5	10	1.5	25	2	0.001	0.013	√	
KLM3S550	Lf	6	50	5.5	11	0.8	27.5	2	0.001	0.013	√	√
KLM3S600	Lg	6	50	6	12	0.8	30	2	0.001	0.012	√	√
KLM4S175	LA	6	50	1.75	3.5	0.8	8.0	2.5	0.006	0.040	√	√
KLM4S175-12	LA	12	50	1.75	3.5	1.2	8.0	2.5	0.006	0.040	√	√
KLM4S200	LB	6	50	2	4	0.8	8.0	3	0.005	0.024	√	√
KLM4S200-12	LB	12	50	2	4	1.2	8.0	3	0.005	0.024	√	√
KLM4S260	LE	6	50	2.6	5	0.8	8.0	4	0.003	0.02	√	√
KLM4S260-12	LE	12	50	2.6	5	1.2	8.0	4	0.003	0.02	√	√
KLM4S300	LG	6	50	3	6	0.8	15.0	2	0.003	0.02	√	√
KLM4S300-12	LG	12	50	3	6	1.5	15.0	2	0.003	0.02	√	√
KLM4S350	LN	6	50	3.5	7	0.8	17.5	2	0.003	0.018	√	√
KLM4S350-12	LN	12	50	3.5	7	1.5	17.5	2	0.003	0.018	√	√
KLM4S380	LK	6	50	3.8	8	0.8	19.0	2	0.003	0.016	√	√
KLM4S380-12	LK	12	50	3.8	8	1.5	19.0	2	0.003	0.016	√	√
KLM4S400	LM	6	50	4	8	0.8	20.0	2	0.002	0.014	√	√
KLM4S400-12	LM	12	50	4	8	1.5	20.0	2	0.002	0.014		
KLM4S450	LP	6	50	4.5	9	0.8	22.5	2	0.002	0.014	√	√
KLM4S450-12	LP	12	50	4.5	9	1.5	22.5	2	0.002	0.014		

Note: UL&cUL File No.: E138827

TUV File No.: 50311748

Polymer PTC Resettable Fuse: KLM 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	
									Initial Ri	Post Trip R1		
		(V _{dc})	(A)	(A)	(A)	(W)	Current (A)	Time (Sec.)	Min. (Ω)	Max(Ω)	UL/cUL	TUV
KLM4S500	LQ	6	50	5	10	0.8	25	2	0.002	0.012	√	√
KLM4S500-12	LQ	12	50	5	10	1.5	25	2	0.002	0.012		
KLM4S550	LR	6	50	5.5	11	0.8	27.5	2	0.002	0.011	√	√
KLM4S600	LS	6	50	6	12	0.8	30	2	0.001	0.01	√	√
KLM4S650	LV	6	50	6.5	13	0.8	32.5	2	0.001	0.009	√	√
KLM4S700	LX	6	50	7	14	1	35	2	0.001	0.008	√	√
KLM4S750	LY	6	50	7.5	15	1	37.5	2	0.001	0.007	√	√
KLM5S190	L190	6	50	1.9	4.9	1	9.5	4.5	0.003	0.025	√	√
KLM5S190-12	L190	12	50	1.9	4.9	1.5	9.5	4.5	0.003	0.025	√	√
KLM5S260	L260	6	50	2.6	6	1	13	2	0.003	0.024	√	√
KLM5S260-12	L260	12	50	2.6	6	1.5	13	2	0.003	0.024		
KLM5S270	L270	6	50	2.7	6.2	1	13	2	0.003	0.023	√	√
KLM5S270-12	L270	12	50	2.7	6.2	1.5	13	2	0.003	0.023	√	√
KLM5S300	L300	6	50	3	6.2	1	8	5	0.003	0.021	√	√
KLM5S300-12	L300	12	50	3	6.2	2	8	5	0.003	0.021	√	√
KLM5S350	L350	6	50	3.5	8.1	1	8	5	0.003	0.02	√	√
KLM5S350-12	L350	12	50	3.5	8.1	2	8	5	0.003	0.02	√	√
KLM5S370	L370	6	50	3.7	9.1	1	18.5	2	0.003	0.018	√	√
KLM5S370-12	L370	12	50	3.7	9.1	2	18.5	2	0.003	0.018	√	√
KLM5S400	L400	6	50	4	8	1	20.0	2	0.003	0.017	√	√
KLM5S400-12	L400	12	50	4	8	2	20.0	2	0.003	0.017	√	
KLM5S450	L450	6	50	4.5	9	1	22.5	2	0.001	0.014	√	√
KLM5S450-12	L450	12	50	4.5	9	2	22.5	2	0.001	0.014	√	
KLM5S500	L500	6	50	5	10	1	25	2	0.001	0.013	√	√
KLM5S500-12	L500	12	50	5	10	2	25	2	0.001	0.013	√	
KLM5S550	L550	6	50	5.5	11	1	27.5	2	0.001	0.008	√	√
KLM5S600	L600	6	50	6	12	1	30	2	0.001	0.008	√	√
KLM5S650	L650	6	50	6.5	13	1	32.5	2	0.001	0.008	√	√
KLM5S700	L700	6	50	7	14	1	35	2	0.001	0.007	√	√
KLM5S750	L750	6	50	7.5	15	1	37.5	2	0.001	0.006	√	√

Note: UL&cUL File No.: E138827

TUV File No.: R50311748

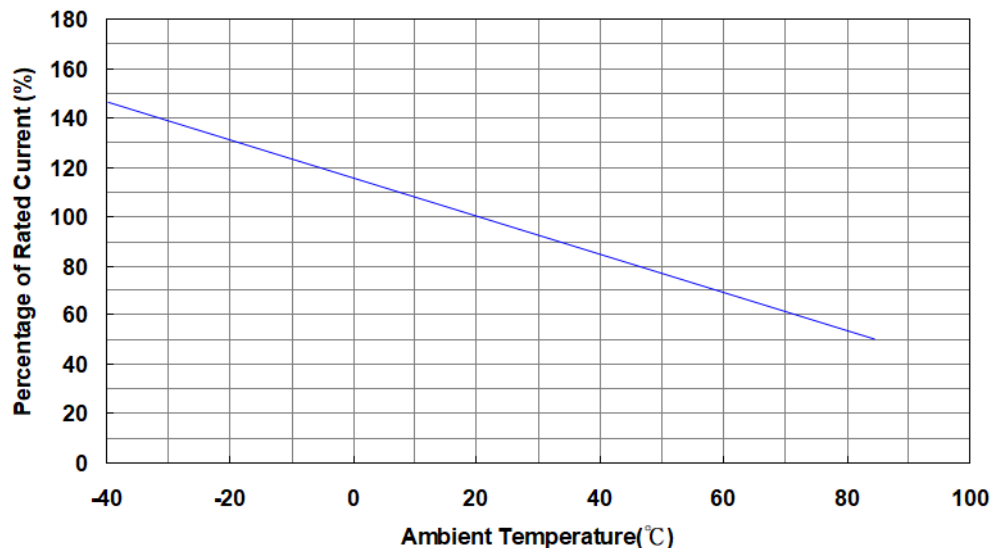
Polymer PTC Resettable Fuse: KLM Series

SMD Low Resistance Type



■ KLM1S (0603) Series Ihold & Itrip Thermal Derating Curve

Derating Curve for KLM1S (0603) Series



■ KLM1S (0603) Series Ihold Thermal Derating Chart

KLM1S (0603) Series

(Unit: A)

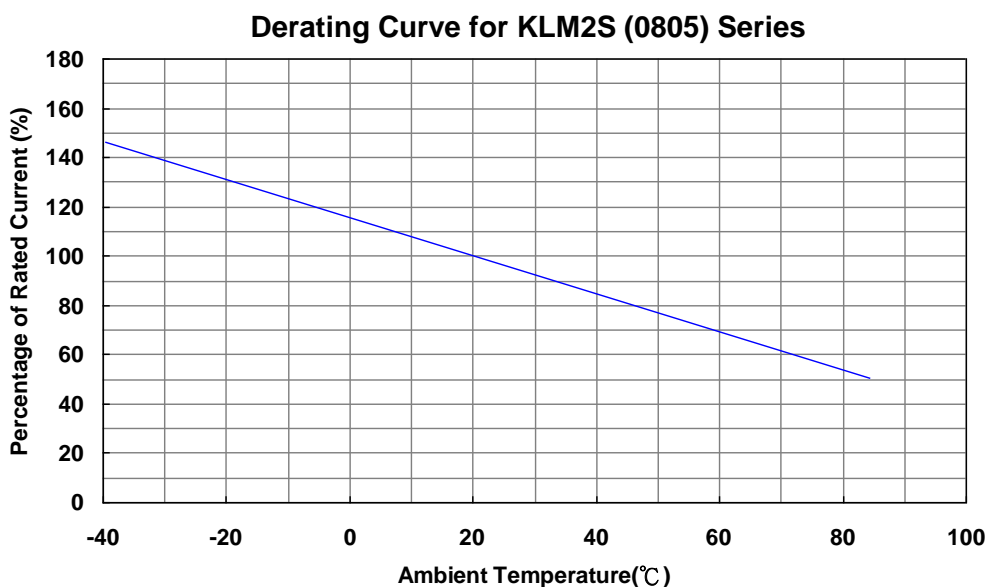
Part No.		Ambient Operation Temperature							
		-40°C	-20°C	0°C	23°C	40°C	60°C	70°C	85°C
KLM1S050	KLM1S050-8	0.81	0.71	0.62	0.50	0.42	0.30	0.24	0.16
KLM1S075	KLM1S075-8	1.24	1.07	0.94	0.75	0.62	0.47	0.37	0.21
KLM1S100	KLM1S100-8	1.36	1.25	1.10	1.00	0.83	0.65	0.52	0.33
KLM1S150	KLM1S150-8	2.37	2.07	1.80	1.50	1.25	0.93	0.74	0.50
KLM1S175	KLM1S175-8	2.57	2.23	1.99	1.75	1.49	1.24	1.00	0.80
KLM1S200		2.80	2.60	2.30	2.00	1.70	1.45	1.15	1.05

Polymer PTC Resettable Fuse: KLM Series

SMD Low Resistance Type



■ KLM2S (0805) Series Ihold & Itrip Thermal Derating Curve



■ KLM2S (0805) Series Ihold Thermal Derating Chart

KLM2S (0805) Series

(Unit: A)

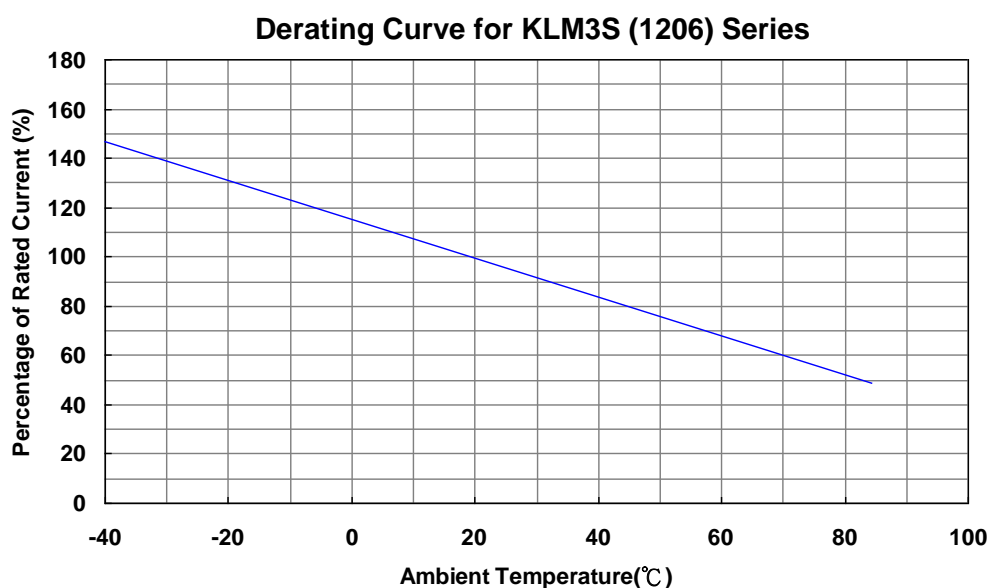
Part No.		Ambient Operation Temperature							
		-40°C	-20°C	0°C	23°C	40°C	60°C	70°C	85°C
KLM2S075	KLM2S075-12	1.24	1.07	0.94	0.75	0.62	0.47	0.37	0.21
KLM2S110	KLM2S110-12	1.93	1.65	1.38	1.10	0.83	0.55	0.41	0.23
KLM2S150	KLM2S150-12	2.37	2.07	1.80	1.50	1.25	0.93	0.74	0.50
KLM2S175	KLM2S175-12	2.57	2.33	2.07	1.75	1.49	1.24	1.00	0.91
KLM2S200		3.10	2.75	2.40	2.00	1.65	1.15	0.95	0.65
KLM2S260		3.80	3.30	2.80	2.60	2.20	1.78	1.55	1.05
KLM2S300		4.55	4.15	3.65	3.00	2.55	2.00	1.65	1.20
KLM2S350		5.6	4.38	3.81	3.5	2.74	2.28	1.93	1.37
KLM2S400		6.4	5	4.35	4	3.13	2.6	2.2	1.57

Polymer PTC Resettable Fuse: KLM Series

SMD Low Resistance Type



■ KLM3S (1206) Series Ihold & Itrip Thermal Derating Curve



■ KLM3S (1206) Series Ihold Thermal Derating Chart

KLM3S (1206) Series

(Unit: A)

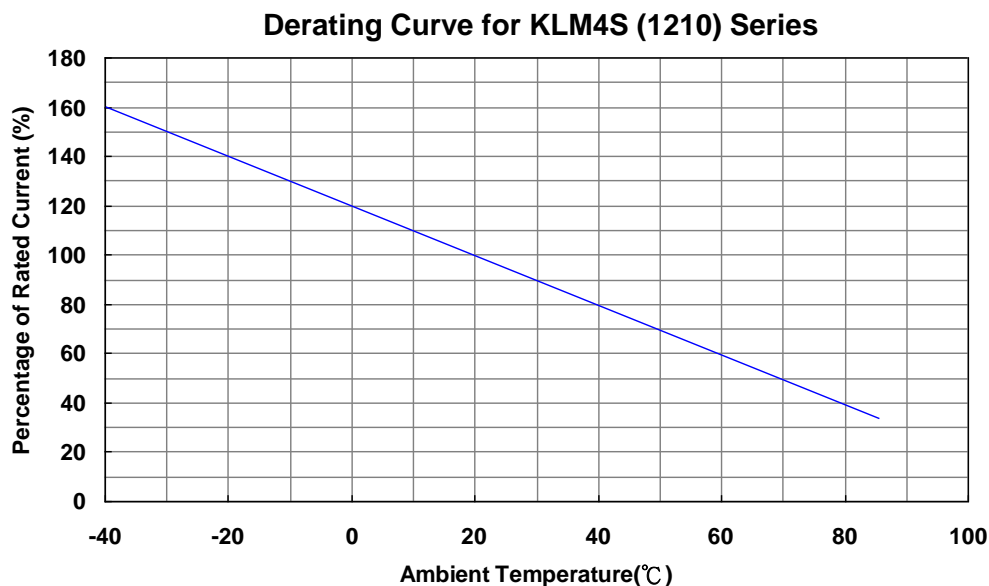
Part no		Ambient Operation Temperature							
		-40°C	-20°C	0°C	23°C	40°C	60°C	70°C	85°C
KLM3S075	KLM3S075-12	1.10	1.00	0.89	0.75	0.64	0.53	0.43	0.39
KLM3S110	KLM3S110-12	1.62	1.46	1.30	1.10	0.94	0.78	0.63	0.57
KLM3S150	KLM3S150-12	2.21	2.00	1.77	1.50	1.28	1.07	0.86	0.78
KLM3S175	KLM3S175-12	2.57	2.33	2.07	1.75	1.49	1.16	0.90	0.80
KLM3S200	KLM3S200-12	3.30	2.90	2.50	2.00	1.62	1.24	1.00	0.85
KLM3S260	KLM3S260-12	3.71	3.42	3.01	2.60	2.08	1.49	1.30	0.89
KLM3S300	KLM3S300-12	4.41	3.99	3.54	3.00	2.55	2.13	1.71	1.56
KLM3S350	KLM3S350-12	5.15	4.66	4.13	3.50	2.98	2.49	2.00	1.82
KLM3S380	KLM3S380-12	5.59	5.05	4.48	3.80	3.20	2.29	2.05	1.98
KLM3S400	KLM3S400-12	5.71	5.26	4.63	4.00	3.30	2.60	2.16	2.05
KLM3S450	KLM3S450-12	6.62	5.99	5.31	4.50	3.83	3.20	2.57	2.10
KLM3S500	KLM3S500-12	7.20	6.60	5.80	5.00	4.25	3.40	3.00	2.34
KLM3S550		8.00	7.15	6.35	5.50	4.90	4.10	3.70	3.05
KLM3S600		8.65	7.80	7.00	6.00	5.30	4.50	4.05	3.40

Polymer PTC Resettable Fuse: KLM Series

SMD Low Resistance Type



■ KLM4S (1210) Series Ihold & Itrip Thermal Derating Curve



■ KLM4S (1210) Series Ihold Thermal Derating Chart

KLM4S (1210) Series

(Unit: A)

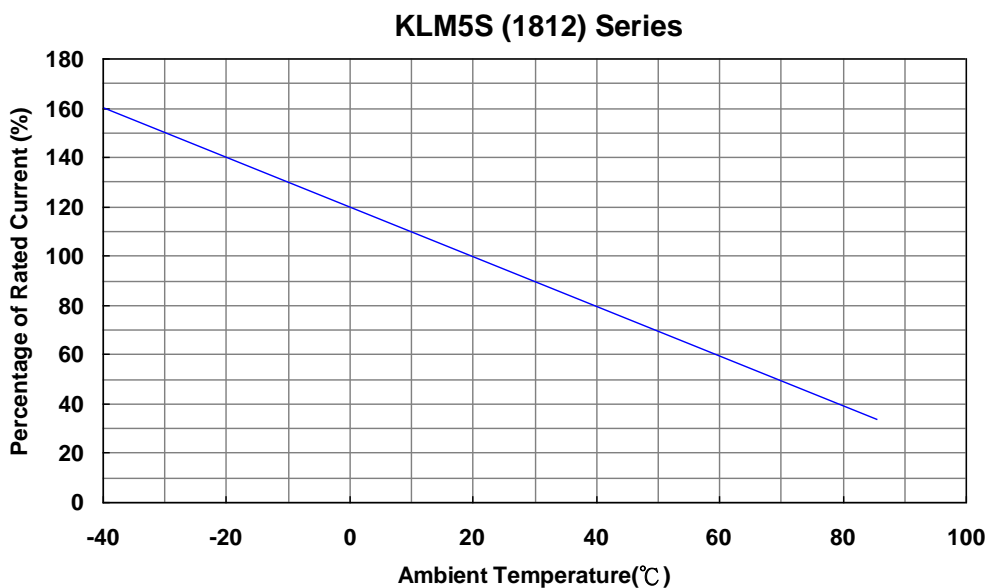
Part no		Ambient Operation Temperature							
		-40°C	-20°C	0°C	23°C	40°C	60°C	70°C	85°C
KLM4S175	KLM4S175-12	2.57	2.33	2.07	1.75	1.49	1.24	1.00	0.78
KLM4S200	KLM4S200-12	3.26	2.87	2.50	2.00	1.70	1.29	1.09	0.91
KLM4S260	KLM4S260-12	3.82	3.46	3.07	2.60	2.21	1.85	1.48	1.35
KLM4S300	KLM4S300-12	4.41	3.99	3.54	3.00	2.55	2.00	1.71	1.40
KLM4S350	KLM4S350-12	5.00	4.60	4.05	3.50	2.80	2.13	1.60	1.50
KLM4S380	KLM4S380-12	5.71	5.26	4.52	3.80	3.15	2.29	2.00	1.60
KLM4S400	KLM4S400-12	6.00	5.28	4.63	4.00	3.20	2.39	2.09	1.73
KLM4S450	KLM4S450-12	6.62	5.99	5.31	4.50	3.83	3.20	2.57	2.34
KLM4S500	KLM4S500-12	7.30	6.60	5.65	5.00	4.27	3.50	3.00	2.55
KLM4S550		8.00	7.15	6.35	5.50	4.90	4.10	3.70	3.05
KLM4S600		8.65	7.80	7.00	6.00	5.30	4.50	4.05	3.40
KLM4S650		9.15	8.15	7.40	6.50	5.50	4.90	3.60	2.70
KLM4S700		9.85	8.80	7.95	7.00	5.95	5.30	3.90	2.90
KLM4S750		10.25	9.15	8.45	7.50	6.75	6.15	4.70	3.65

Polymer PTC Resettable Fuse: KLM Series

SMD Low Resistance Type



■ KLM5S (1812)Series Ihold & Itrip Thermal Derating Curve



■ KLM5S (1812) Series Ihold Thermal Derating Chart

KLM5S (1812) Series

(Unit: A)

Part no		Ambient Operation Temperature							
		-40°C	-20°C	0°C	23°C	40°C	60°C	70°C	85°C
KLM5S190	KLM5S190-12	3.00	2.58	2.22	1.90	1.49	1.14	0.93	0.61
KLM5S260	KLM5S260-12	3.82	3.46	3.07	2.60	2.16	1.54	1.48	0.93
KLM5S270	KLM5S270-12	3.86	3.55	3.12	2.70	2.21	1.85	1.35	1.03
KLM5S300	KLM5S300-12	4.41	3.99	3.54	3.00	2.55	2.10	1.71	1.12
KLM5S350	KLM5S350-12	5.43	4.73	4.13	3.50	2.80	2.13	1.75	1.56
KLM5S370	KLM5S370-12	5.44	4.92	4.37	3.70	3.15	2.63	2.11	1.92
KLM5S400	KLM5S400-12	5.88	5.28	4.64	4.00	3.41	2.84	2.55	2.08
KLM5S450	KLM5S450-12	6.62	5.99	5.31	4.50	3.83	3.20	2.57	2.34
KLM5S500	KLM5S500-12	7.35	6.60	5.85	5.00	4.31	3.55	3.15	2.55
KLM5S550		8.12	7.32	6.40	5.50	4.85	3.88	3.40	2.55
KLM5S600		8.88	8.00	6.99	6.00	5.15	5.00	3.45	2.60
KLM5S650		9.65	8.66	7.58	6.50	5.55	4.50	3.65	2.75
KLM5S700		10.62	9.30	8.15	7.00	5.98	5.05	3.95	3.00
KLM5S750		11.35	9.95	8.70	7.50	6.75	5.75	4.95	3.55

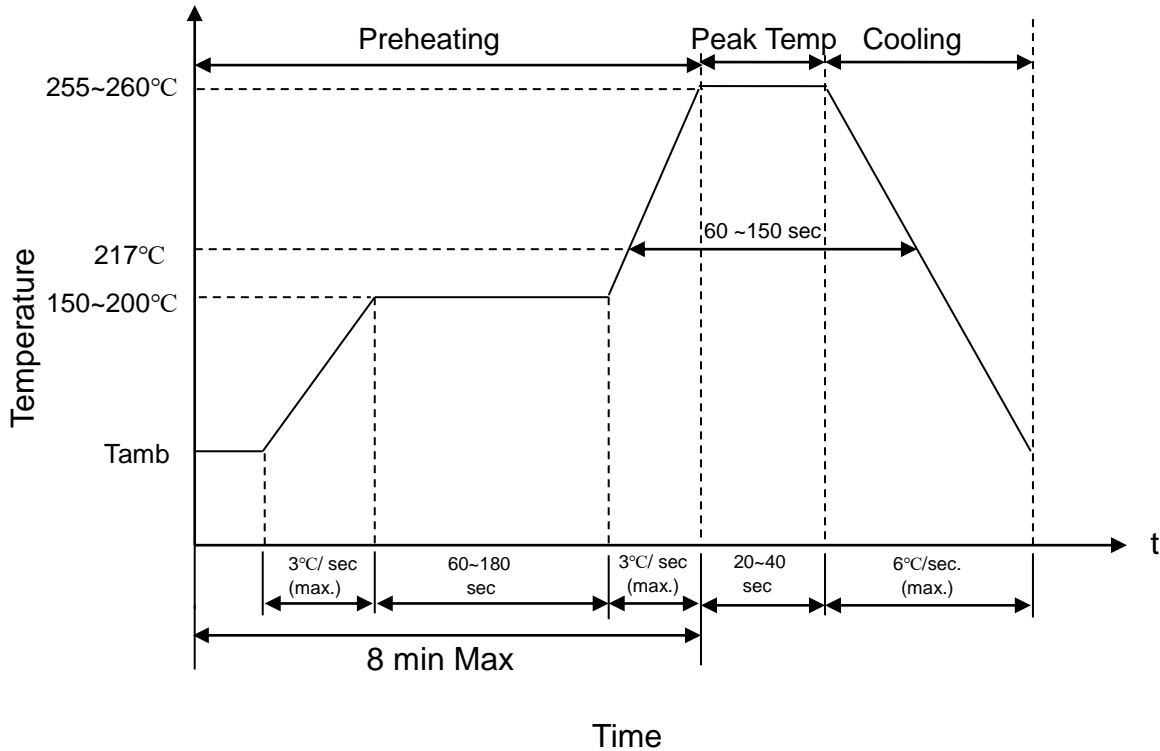
Polymer PTC Resettable Fuse: KLM Series

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.

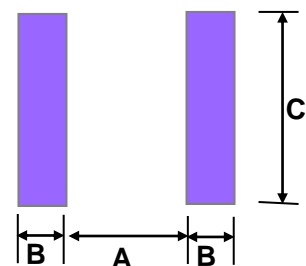
Note:

- 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
KLM1S	0603	0.8	1.00	1.00
KLM2S	0805	1.20	1.00	1.50
KLM3S	1206	2.00	1.00	1.90
KLM4S	1210	2.00	1.00	2.80
KLM5S	1812	3.45	1.78	3.50



Polymer PTC Resettable Fuse: KLM Series

SMD Low Resistance Type

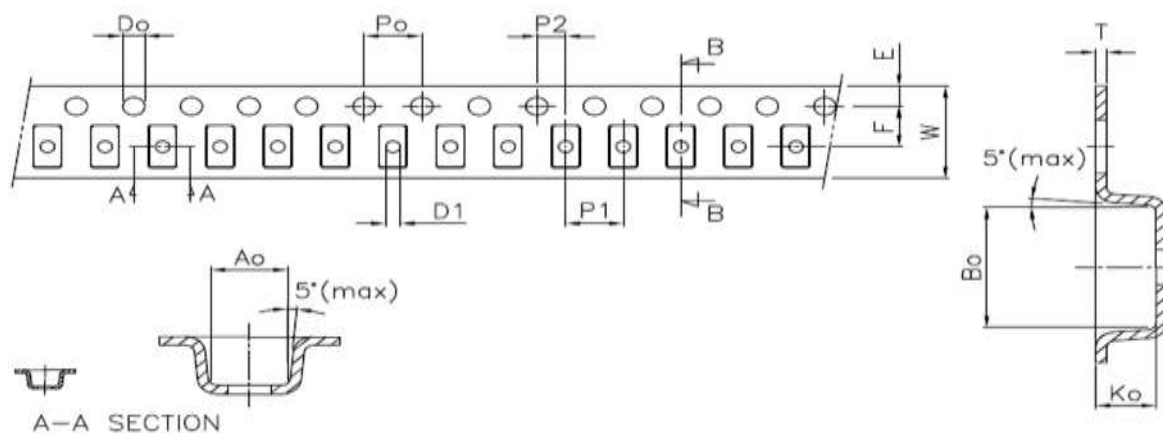


■ Reliability

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 ≤ I ≤ Imax, 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



◆ KLM1S Series: SMD 0603 Type

For KLM1S050 ~ KLM1S100

(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	1.1	1.85	0.60	4.0	4.0	2.0	0.20	1.75	3.5	1.5	0.5	8.0	40.0

For KLM1S150 ~ KLM1S200

(Unit: mm)

Index Size	A ₀ ±0.10	B ₀ ±0.15	K ₀ ±0.05	P ₀ ±0.10	P ₁ ±0.10	P ₂ ±0.05	T +0.05 -0.08	E ±0.10	F ±0.05	D ₀ ±0.05	D ₁ Min.	W ±0.20	10P ₀ ±0.20
0603	1.1	1.85	0.75	4.0	4.0	2.0	0.23	1.75	3.5	1.55	0.4	8.0	40.0

Polymer PTC Resettable Fuse: KLM Series

SMD Low Resistance Type



◆ KLM2S 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
	±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
0805	1.6	2.3	0.9	4.0	4.0	2.0	0.25	1.75	3.50	1.55	1.0	8.0	40.0

◆ KLM3S Series: SMD 1206 Type

For KLM3S075~KLM3S150

(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
	±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
1206	1.85	3.45	0.85	4.0	4.0	2.0	0.23	1.75	3.5	1.55	1.0	8.0	40.0

For KLM3S175~ KLM3S600

(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
	±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
1206	1.95	3.55	1.4	4.0	4.0	2.0	0.23	1.75	3.5	1.55	1.0	8.0	40.0

◆ KLM4S 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
	±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
1210	2.82	3.63	1.47	4.0	4.0	2.0	0.23	1.75	3.5	1.55	1.0	8.0	40.0

◆ KLM5S Series: SMD 1812 Type

For KLM5S190~ KLM5S400

(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
	±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
1812	3.50	5.0	0.9	4.0	8.0	2.0	0.25	1.75	5.5	1.55	1.50	12.0	40.0

For KLM5S450~ KLM5S750

(Unit: mm)

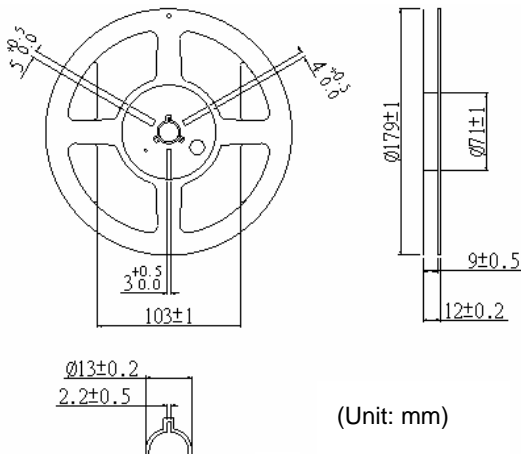
Index Size	A ₀	B ₀	K ₀	P ₀	P ₁	P ₂	T	E	F	D ₀	D ₁	W	10P ₀
	±0.10	±0.10	±0.05	±0.10	±0.10	±0.10	±0.05	±0.10	±0.10	±0.05	Min.	±0.30	±0.20
1812	3.56	4.94	1.7	4.0	8.0	2.0	0.25	1.75	5.5	1.55	1.50	12.0	40.0

Polymer PTC Resettable Fuse: KLM Series

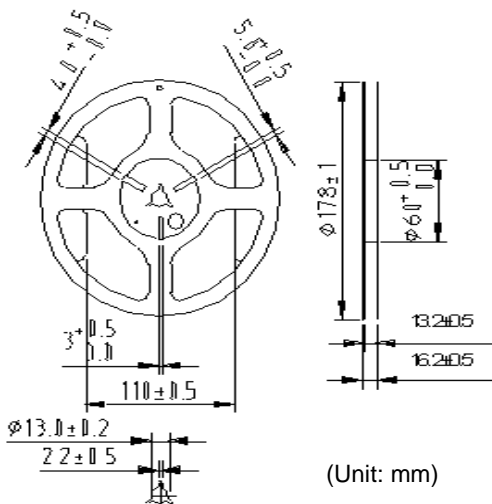
SMD Low Resistance Type



Quantity



Size	Part no	Quantity (pcs/reel)	Carton Size (mm)	Quantity (reel/carton)
0603	KLM1S050~100	6,000	350*350*290	28
	KLM1S150~200	5,000		
0805	KLM2S	4,000		
1206	KLM3S075~150	5,000		
	KLM3S175~600	2,500		
1210	KLM4S	3,000		



Size	Part no	Quantity (pcs/reel)	Carton Size (mm)	Quantity (reel/carton)
1812	KLM5S190~400	2,000	350*350*290	24
	KLM5S450~750	1,000		

Warehouse Storage Conditions of Products

● Storage Conditions:

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

■ Period of Storage: 1 year