SHenzhen Ruilongyuan Electronics Co.,Ltd			
Product name	Thermally Protected Varistors	Product Type	KOV20D-750Kb
File serial number	SP-SPD-462	Product code	10.20.40.7504-2000
Classification	☐Reference ☐Sample ■Qualified ☐Changed		

KOV20D-750Kb

Thermally Protected Varistors

Prepared by：	Zoujinhua	Date：	2026.07.13
Reviewed by：	Shennengwu	Date：	2026.07.13
Approved by：	Robert	Date：	2026.07.13

Customer Confirmation		
Customer Name		
Customer Materials		
Conclusion	☐ Qualified	☐ Nonconforming
Effective Date		
Handled by：	Audit：	Approved：

Revision History

Revision Version	Description	Page	Date
A0	Qualified	/	2026.05.21
A1	1. Add “PAD” 2. T1 changed to 6.5	5	2026.07.13

1. Description

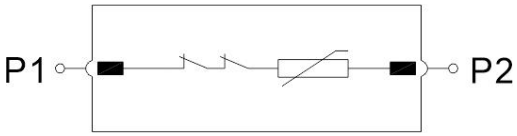
KOV@K is a combination of varistors (MOV) and thermal protection component. Since varistor has the characteristics of aging or degrading; KOV@K can separate the varistor from the main circuitry by opening the thermal protection component when the varistor (MOV) degrades or fails. It is often used in which requires high reliability and weather withstanding, such as photovoltaic inverters, communication equipment, and power supplies in data centers, etc.

2. Features

- Mechanical tripping thermal protection, fast response
- Small size, space-saving
- Sealing material flammability rating V0 (UL 94)
- It can meet the operating temperature of -40 ~ 95 °C
- RoHS and REACH compliant



3. Circuit Diagram



4. Applications

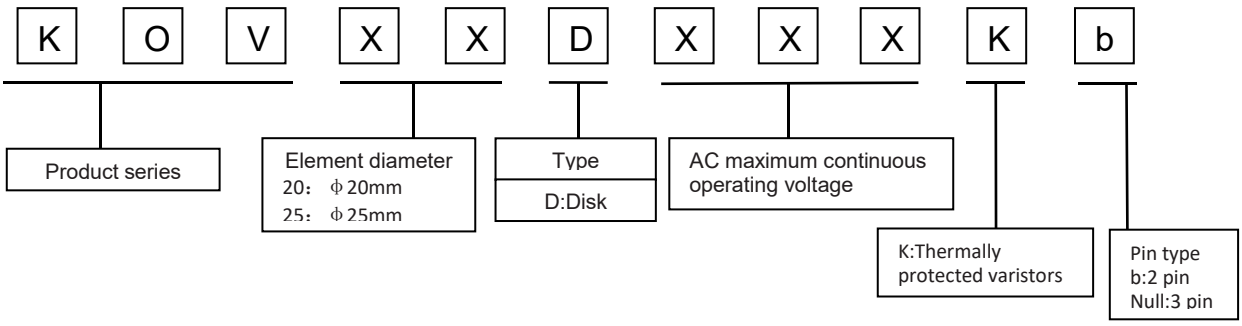
AC Line Protection

- White goods
- Power line communications
- Smoke alarm systems
- High value consumer goods
- Satisfy UL 1449 SPD 5th edition

DC Line Protection

- Solar inverters
- Power supplies
- Distribution systems

5. Part Number Code



6. Absolute Maximum Ratings

Parameter	Symbol	Value	Unit
Operating Temperature	T_{OPR}	-40~95	℃
Storage Temperature	T_{STG}	-40~105	℃

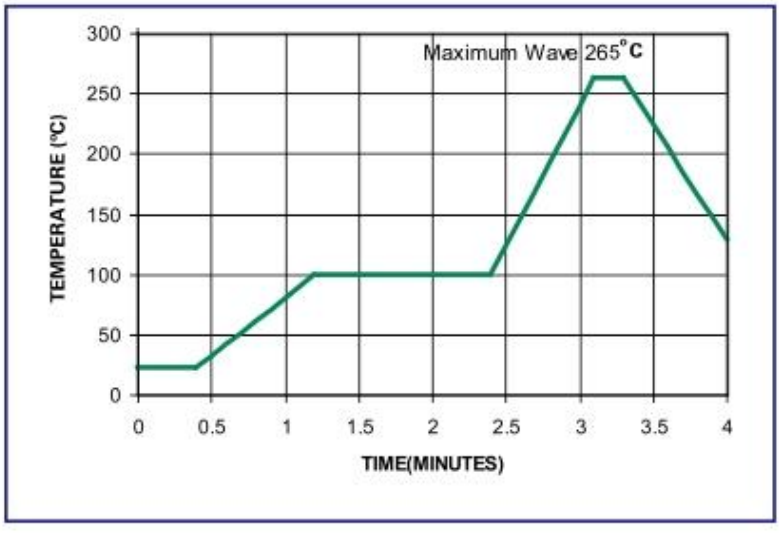
7. Electrical Characteristics(@TA=25℃ unless otherwise noted)

Type Number	Varistor Voltage	Max. Allowable Voltage		Max. Energy (10/1000μs)	Max. Clamping Voltage (8/20μs)		Withstanding Surge Current	Rated Power	Typical Capacitance (Reference)
	V_{1mA}(V)	V_{AC}(V)	V_{DC}(V)	(J)	I_P(A)	V_C(V)	1.2/50μs&8/20μs (40times)	(W)	@1KHz(pf)
KOV20D-750Kb	1080~1320	750	990	730	100	2010	6	1.0	440

8. Agency Approvals

Icom	Description
ROSH	Compliance with 2011/65/EU
HF	Compliance with IEC61249-2-21:2003
Pb	Mean lead free
/	/

9. Wave Soldering Parameters (For Reference Only)



Items	Temp. (°C)	Time (s)
Preheating	80 to 100	60 to150
Dwelling	250 to 265	2 to 4

10. Recommended Hand-Soldering Parameters

Items	Condition
Lron Temperature	350℃(Max.)
Soldering Time	4 Seconds (Max.)
Distance Between Soldering Point And The Battom Of Product	2mm(Min.)

11. Dimensions

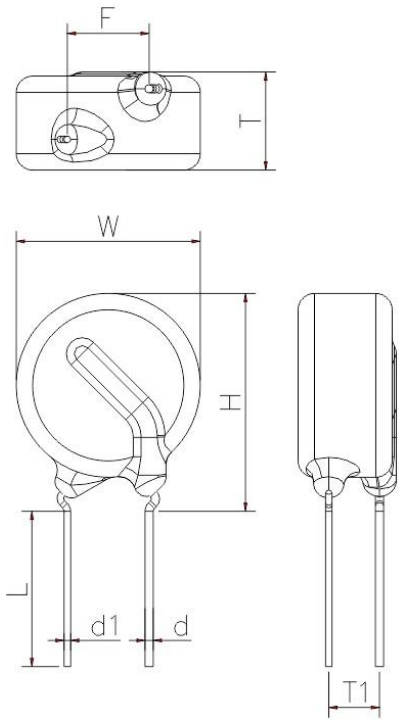
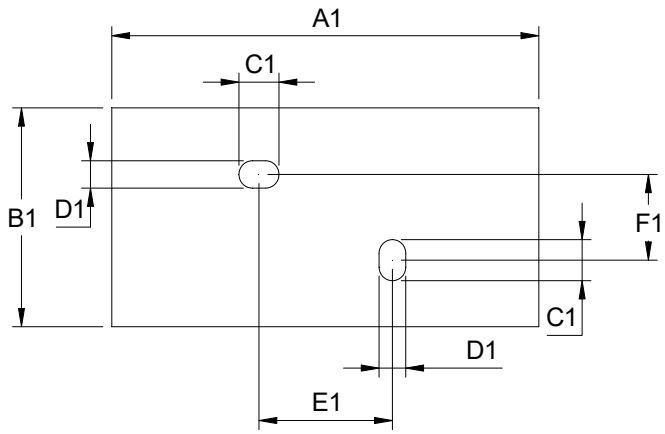


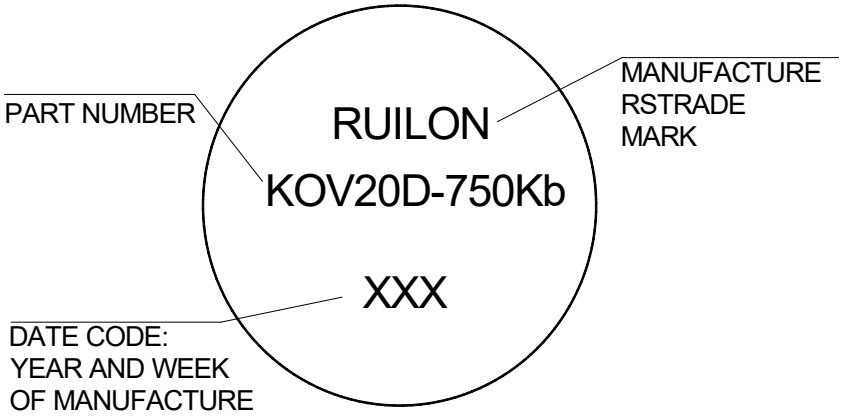
TABLE 1		
Symbol	**Millimeters**	**Inches**
W(max)	24.0	0.945
H(max)	29.5	1.161
L(min)	15.0	0.591
F (±1.0)	10.0	0.394
d(±0.05)	Φ1.0	0.039
d1(±0.05)	Φ0.8	0.031
T(max)	15.0	0.591
T1 (±1.0)	6.5	0.250

12. Pad



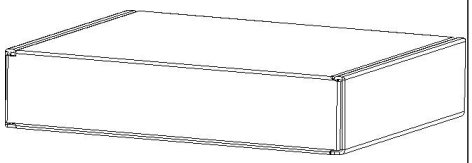
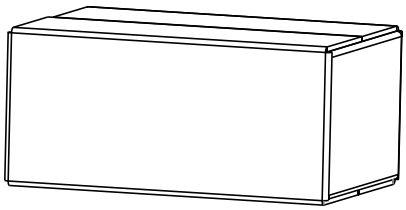
Symbol	Millimeters	Inches
A1	24.0	0.945
B1	15.0	0.591
C1	2.0	0.079
D1	1.2	0.047
E1	10.0	0.394
F1	6.5	0.250

13. Typical Part Marking



14. Packaging Information - 20 mm Disc

BULK:

Inner box size	Outer box size	Quantity
Size：260*208*55(mm) 	Size：435*275*200(mm) 	• 1200 pcs. per carton • 100 pcs. per bag • 2 bags per inner box • 6 inner boxes per carton