

- Pin P3&P4 / P5&P6 is optional.
- Refer to Page 193 for Auxiliary Function Application.

Dimensions (mm)

Nominal Varistor Voltage	L ( $\pm 1.0$ )	L <sub>1</sub> ( $\pm 0.5$ )	L <sub>2</sub> ( $\pm 1.0$ )	W ( $\pm 1.0$ )	W <sub>1</sub> ( $\pm 0.2$ )	T ( $\pm 1.0$ )	T <sub>1</sub> ( $\pm 0.2$ )
820 - 201	42.7	14.5	5.0	44.0	7.1	12.6	0.6
221 - 471	42.7	14.5	5.0	44.0	7.1	14.6	0.6
511 - 621	42.7	14.5	5.0	44.0	7.1	16.5	0.6
681 - 821	42.7	14.5	5.0	44.0	7.1	18.5	0.6
911 - 122	42.7	14.5	5.0	44.0	7.1	23.0	0.6
Nominal Varistor Voltage	d ( $\pm 0.05$ )	F <sub>1</sub> ( $\pm 0.3$ )	F <sub>2</sub> ( $\pm 0.3$ )	F <sub>3</sub> ( $\pm 0.5$ )	F <sub>4</sub> ( $\pm 0.5$ )	F <sub>5</sub> ( $\pm 0.5$ )	F <sub>6</sub> ( $\pm 0.5$ )
820 - 201	Φ0.50	12.5	12.5	2.3	10.2	5.0	5.5
221 - 471	Φ0.50	12.5	12.5	2.3	11.0	5.0	5.5
511 - 621	Φ0.50	12.5	12.5	2.3	12.2	5.0	5.5
681 - 821	Φ0.50	12.5	12.5	2.3	13.5	5.0	5.5
911 - 122	Φ0.50	12.5	12.5	2.3	20.5	5.0	5.5

Model	L ( $\pm 1.0$ )	L <sub>1</sub> ( $\pm 0.5$ )	L <sub>2</sub> ( $\pm 1.0$ )	W ( $\pm 1.0$ )	W <sub>1</sub> ( $\pm 0.2$ )	T ( $\pm 1.0$ )	T <sub>1</sub> ( $\pm 0.2$ )
TFMOV40K150x	42.7	14.5	5.0	44.0	7.1	14.6	0.6
TFMOV40K300x	42.7	14.5	5.0	44.0	7.1	14.6	0.6
TFMOV40K350x	42.7	14.5	5.0	44.0	7.1	16.5	0.6
TFMOV40K460x	42.7	14.5	5.0	44.0	7.1	18.5	0.6
TFMOV40K550x	42.7	14.5	5.0	44.0	7.1	18.5	0.6
Model	d ( $\pm 0.05$ )	F <sub>1</sub> ( $\pm 0.3$ )	F <sub>2</sub> ( $\pm 0.3$ )	F <sub>3</sub> ( $\pm 0.5$ )	F <sub>4</sub> ( $\pm 0.5$ )	F <sub>5</sub> ( $\pm 0.5$ )	F <sub>6</sub> ( $\pm 0.5$ )
TFMOV40K150x	Φ0.50	12.5	12.5	2.3	11.0	5.0	5.5
TFMOV40K300x	Φ0.50	12.5	12.5	2.3	11.0	5.0	5.5
TFMOV40K350x	Φ0.50	12.5	12.5	2.3	12.2	5.0	5.5
TFMOV40K460x	Φ0.50	12.5	12.5	2.3	13.5	5.0	5.5
TFMOV40K550x	Φ0.50	12.5	12.5	2.3	13.5	5.0	5.5

Key Features

- Optional Remote Signal Function
- Space Saving
- RoHS & REACH Compliant

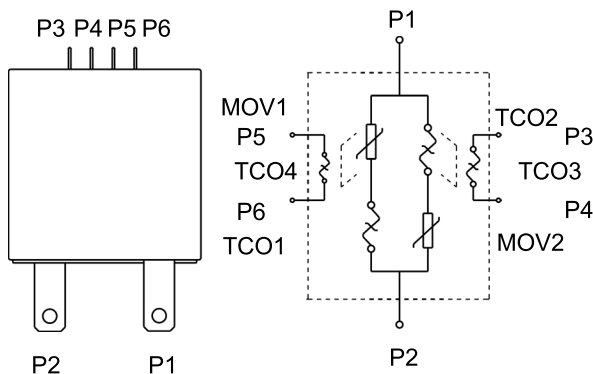
Agency Approvals

- UL / CUL: E322662
- TUV: On-going

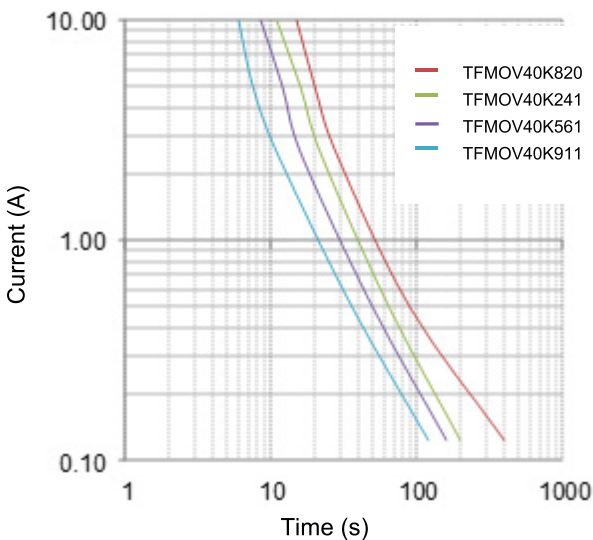
Applications

- Industrial Power Supply
- Surge Protective Device
- Electricity Meter

Schematics

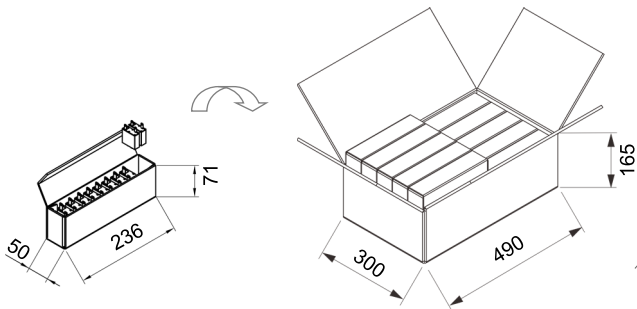


Limited Current Test Curve (UL 1449 4th clause 44.4)



- The above curve is for reference only.

Packaging Information



Nominal Varistor Voltage	Box	Carton
820 - 471	15 PCS / Box	360 PCS / Carton
511 - 821	12 PCS / Box	288 PCS / Carton
911 - 122	10 PCS / Box	240 PCS / Carton

- Unit: mm;
- Please refer to the specifications for the packaging details.

Specifications

Model	Nominal System Voltage	Max. Continuous Operating Voltage	Nominal Discharge Current (8/20 $\mu$ s)		Voltage Protection Rating	SCCR	SPD Type
	$U_n$	$U_c$	$I_n$	$I_{max}$	VPR (@6kV/3kA)		
	( Vac )	( Vac )	( kA )		( V )	( kA )	UL 1449
TFMOV40K150x	120	150	40	100	600	150	Type 1CA
TFMOV40K300x	220	300	40	100	900	200	Type 1CA
TFMOV40K350x	277	350	40	100	1200	200	Type 1CA
TFMOV40K460x	347	460	40	100	1500	200	Type 1CA
TFMOV40K550x	480	550	40	100	1500	200	Type 1CA

## Specifications

Model	Max. Continuous Operating Voltage		Varistor Voltage @1 mA dc		Clamping Voltage (Max.)		Nominal Discharge Current (8/20 $\mu$ s)	Max. Discharge Current (8/20 $\mu$ s)	Voltage Clamping Ratio <sup>a</sup>		Max. Energy (Joule)	Typical Capacitance (Reference)	SPD Type
	$U_c$		Min.	Max.	$V_C$	$I_P$	$I_n$	$I_{max}$	$R_{cl}$	$I_n$	10/1000 $\mu$ s	@1 kHz	UL 1449
	( Vac )	( Vdc )	( V )		( V )	( A )	( kA )			( kA )	( J )	( pF )	
TFMOV40K820x	50	65	74	90	135	150	30	60	3.2	30	312	37900	Type 4CA
TFMOV40K101x	60	85	90	110	165	150	30	60	3.2	30	390	30000	Type 4CA
TFMOV40K121x	75	100	108	132	200	150	30	60	3.2	30	470	24400	Type 4CA
TFMOV40K151x	95	125	135	165	250	150	40	100	3.2	40	592	20000	Type 4CA
TFMOV40K181x	115	150	162	198	300	150	40	100	2.3	40	700	16500	Type 4CA
TFMOV40K201x	130	170	185	225	340	150	40	100	2.3	40	800	13500	Type 4CA
TFMOV40K221x	140	180	198	242	360	150	40	100	2.3	40	900	12800	Type 4CA
TFMOV40K241x	150	200	216	264	395	150	40	100	2.3	40	960	11300	Type 4CA
TFMOV40K271x	175	225	243	297	455	150	40	100	2.3	40	1080	10200	Type 4CA
TFMOV40K301x	190	250	270	330	500	150	40	100	2.3	40	1200	9020	Type 4CA
TFMOV40K331x	210	275	297	363	550	150	40	100	2.3	40	1312	8300	Type 4CA
TFMOV40K361x	230	300	324	396	595	150	40	100	2.3	40	1490	7500	Type 4CA
TFMOV40K391x	250	320	351	429	650	150	40	100	2.3	40	1660	7000	Type 4CA
TFMOV40K431x	275	350	387	473	710	150	40	100	2.3	40	1840	5900	Type 4CA
TFMOV40K471x	300	385	423	517	775	150	40	100	2.3	40	2000	5760	Type 4CA
TFMOV40K511x	320	415	459	561	845	150	40	100	2.3	40	2120	5300	Type 4CA
TFMOV40K561x	350	460	504	616	925	150	40	100	2.3	40	2300	4900	Type 4CA
TFMOV40K621x	385	505	558	682	1025	150	40	100	2.3	40	2500	4400	Type 4CA
TFMOV40K681x	420	560	612	748	1120	150	40	100	2.3	40	2500	4000	Type 4CA
TFMOV40K751x	460	615	675	825	1240	150	40	100	2.3	40	2560	3640	Type 4CA
TFMOV40K821x	510	670	738	902	1355	150	40	100	2.3	40	2600	3600	Type 4CA
TFMOV40K911x	550	745	819	1001	1500	150	40	100	2.3	40	2950	3000	Type 4CA
TFMOV40K102x	625	825	900	1100	1650	150	40	100	2.3	40	3100	2700	Type 4CA
TFMOV40K112x	680	895	990	1210	1815	150	40	100	2.3	40	3500	2460	Type 4CA
TFMOV40K122x	750	1000	1080	1320	1980	150	40	100	2.3	40	4000	2270	Type 4CA

x: Optional Remote Signal Function, -IT with One Remote Signal P3 & P4, -2IT with Two Remote Signal P3 & P4 and P5 & P6.

a:  $R_{cl} = \frac{V_C}{V_N}$ ,  $U_p \geq V_C$ ;  $V_C$ : Clamping Voltage (@  $I_n$ ),  $V_N$ : Varistor Voltage,  $U_p$ : Voltage Protection Level.

The Value of Voltage Protection Level ( $U_p$ ) is determined according to IEC 61643-11:2011 clause 6.4 .

Preferred values of voltage protection level (kV): 0.08; 0.09; 0.10; 0.12; 0.15; 0.22; 0.33; 0.4; 0.5; 0.6; 0.7; 0.8; 0.9; 1.0; 1.2; 1.5; 1.8; 2.0; 2.5; 3.0; 4.0; 5.0; 6.0; 8.0; 10.