

Metal Oxide Varistors (MOV) Data Sheet

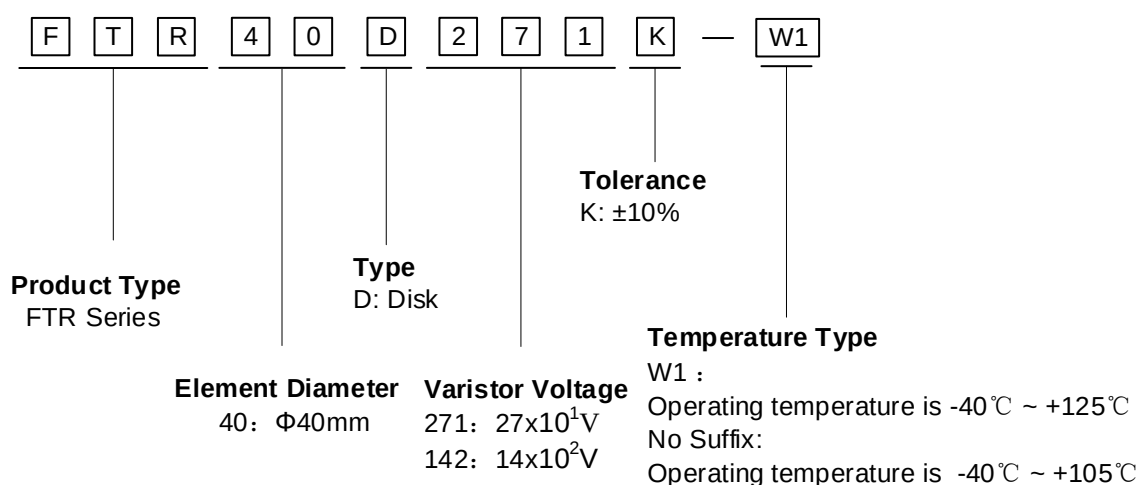
Features

- Fast responding to transient over-voltage
- Large absorbing transient energy capability
- Low clamping ratio and no follow-on current
- Meets MSL level 1, per J-STD-020
- Operating Temperature: $-40^{\circ}\text{C} \sim +105^{\circ}\text{C}$ & $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$
- Storage Temperature: $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$
- Agency recognition: UL 1449 4th /cUL/CQC

Applications

- Power supply, Telecommunication, Smart meter, or PLC protection
- Surge protection in consumer electronics
- Surge protection in industrial electronics
- Surge protection in electronic home appliances, gas and petroleum appliances
- Relay and electromagnetic valve surge absorption

Part Number Code

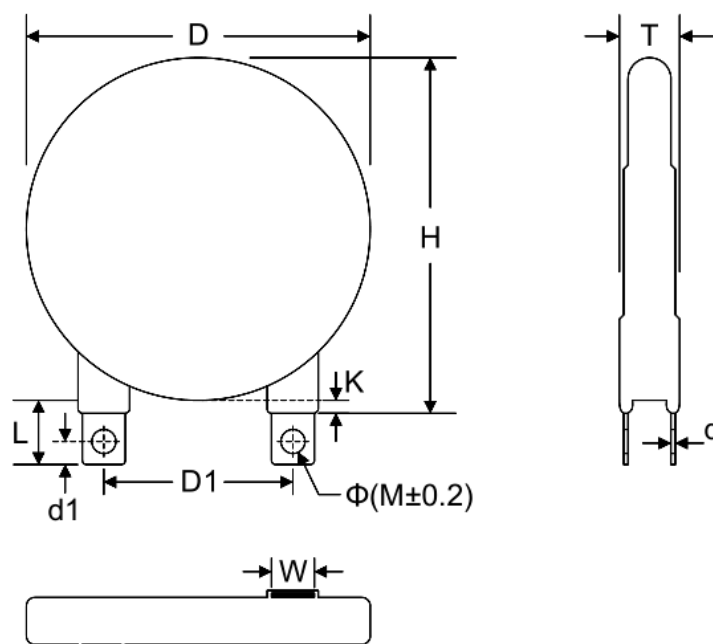


Electrical Characteristics

Part Number	Maximum Allowable Voltage		Varistor Voltage	Maximum Clamping Voltage		Withstanding Surge current	Maximum Energy (10/1000μs)	Dimension Tmax
	V _{AC} (V)	V _{DC} (V)		I _P (A)	V _C (V)			
Standard	V _{AC} (V)	V _{DC} (V)	V _{1mA} (V)	I _P (A)	V _C (V)	(A)	(J)	(mm)
FTR40D181K	115	150	180(162~198)	300	300	40000	330	6.1
FTR40D201K	130	170	200(180~220)	300	340	40000	370	6.2
FTR40D221K	140	180	220(198~242)	300	360	40000	400	6.3
FTR40D241K	150	200	240(216~264)	300	395	40000	430	6.4
FTR40D271K	175	225	270(243~297)	300	455	40000	470	6.6
FTR40D301K	190	250	300(270~330)	300	500	40000	510	6.8
FTR40D331K	210	275	330(297~363)	300	550	40000	550	6.9
FTR40D361K	230	300	360(324~396)	300	595	40000	570	7.1
FTR40D391K	250	320	390(351~429)	300	650	40000	590	7.3
FTR40D431K	275	350	430(387~473)	300	710	40000	660	7.5
FTR40D471K	300	385	470(423~517)	300	775	40000	720	7.8
FTR40D511K	320	415	510(459~561)	300	845	40000	770	8.0
FTR40D561K	350	460	560(504~616)	300	925	40000	810	8.3
FTR40D621K	385	505	620(558~682)	300	1025	40000	860	8.7
FTR40D681K	420	560	680(612~718)	300	1120	40000	900	9.0
FTR40D751K	460	615	750(675~825)	300	1240	40000	940	9.4
FTR40D781K	485	640	780(702~858)	300	1290	40000	980	9.6
FTR40D821K	510	670	820(738~902)	300	1355	40000	1080	9.8
FTR40D911K	550	745	910(819~1001)	300	1500	40000	1150	10.4
FTR40D102K	625	825	1000(900~1100)	300	1650	40000	1260	11.2
FTR40D112K	680	895	1100(990~1210)	300	1815	40000	1380	11.8
FTR40D122K	750	990	1200(1080~1320)	300	1980	40000	1460	12.3
FTR40D142K	880	1140	1400(1260~1540)	300	2310	40000	1550	13.3
FTR40D162K	1000	1280	1600(1440~1760)	300	2640	40000	1700	14.3

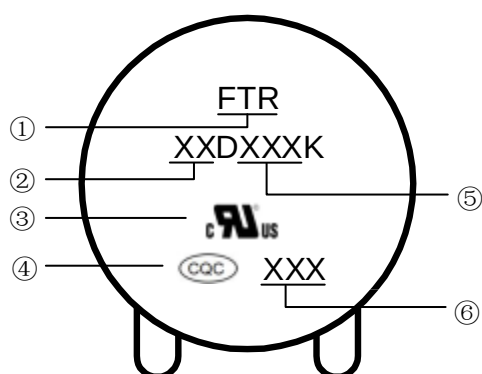
Notes: 1. Leakage Current (@83% of V_{1mA}): $I_R \leq 25\mu A$ (181K~162K)

Dimensions



Symbol	H (max.)	D (max.)	D1 (± 1)	L (min.)	K (max.)	W (± 0.5)	d (± 0.25)	d1 (± 0.25)	ΦM (± 0.2)	Tmax
Dimension (mm)	48	42	25.4	14.5	3.2	7	0.5	3.7	3.2	Please refer to the Electrical Characteristics Table

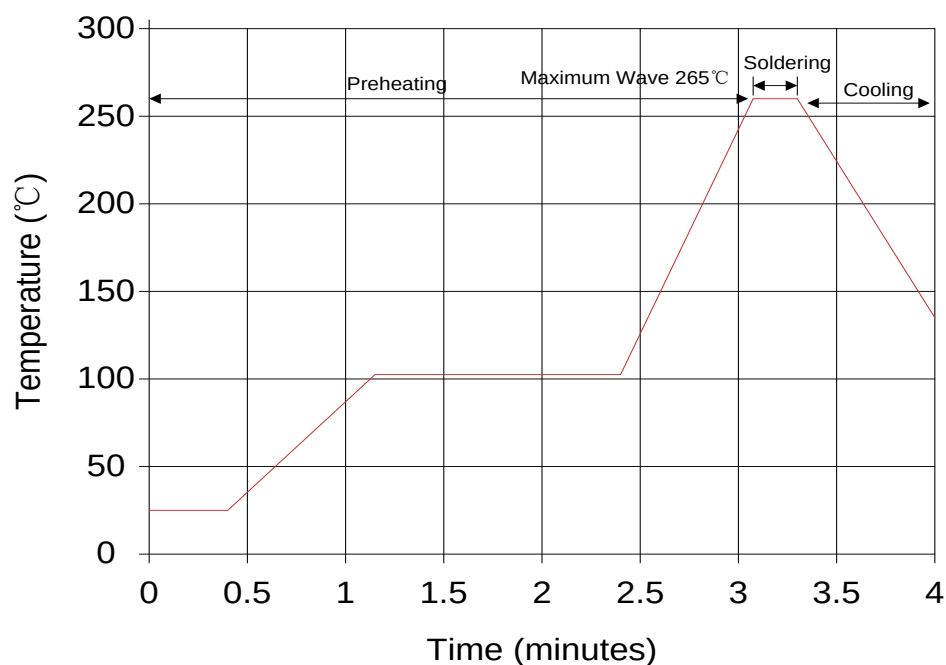
Marking Code



- ① QG Logo
- ② Disk Size
- ③ UL Accreditation Logo
- ④ CQC Accreditation Logo
- ⑤ Varistor Voltage
- ⑥ Date Code

Soldering Recommendation

Wave Lead Free Soldering Recommendation

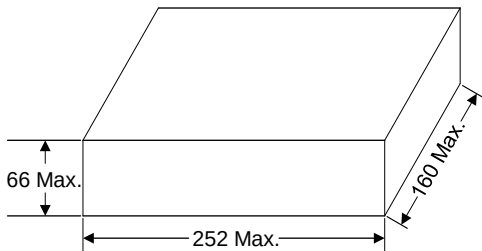


Item	Conditions
Peak Temperature	265°C
Dipping Time	10 seconds(max.)
Soldering	1 time

Recommendation Reworking Conditions with Soldering Iron

Item	Conditions
Temperature of Soldering Iron-tip	360°C(max.)
Soldering Time	3 seconds(max.)
Distance from Varistor	2mm (min.)

Quantity

Packaging Dimensions (Unit: mm)	Quantity
bulk 	60pcs/bag (181K~511K)
	32pcs/bag (561K~162K)