Metal Oxide Varistors (MOV) Data Sheet

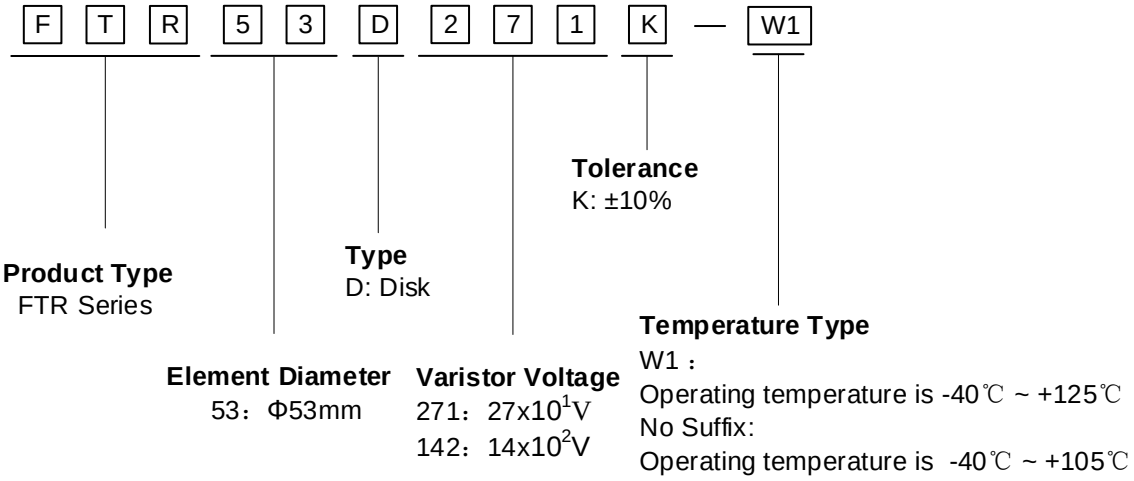
Features

- 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℃ ~ +105℃&-40℃ ~ +125℃
- Storage Temperature：-40℃ ~ +125℃
- 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

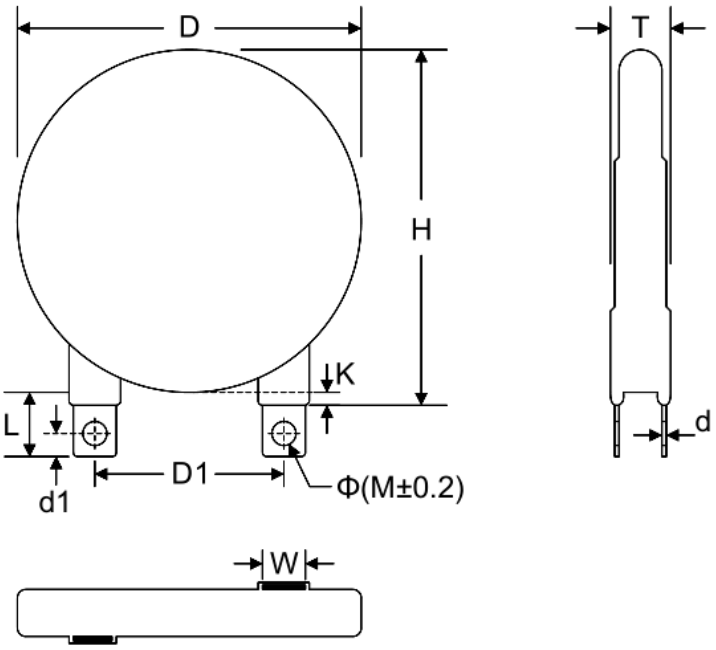


Electrical Characteristics

Part Number	Maximum Allowable Voltage		Varistor Voltage	Maximum Clamping Voltage		Withstanding Surge current	Maximum Energy (10/1000μs)	Dimension Tmax
Standard	V_{AC}(V)	V_{DC}(V)	V_{1mA}(V)	I_P(A)	V_C(V)	(A)	(J)	(mm)
FTR53D181K	115	150	180(162~198)	500	300	70000	500	6.2
FTR53D201K	130	170	200(180~220)	500	340	70000	550	6.3
FTR53D221K	140	180	220(198~242)	500	360	70000	600	6.4
FTR53D241K	150	200	240(216~264)	500	395	70000	650	6.5
FTR53D271K	175	225	270(243~297)	500	455	70000	700	6.7
FTR53D301K	190	250	300(270~330)	500	500	70000	765	6.9
FTR53D331K	210	275	330(297~363)	500	550	70000	825	7.0
FTR53D361K	230	300	360(324~396)	500	595	70000	850	7.2
FTR53D391K	250	320	390(351~429)	500	650	70000	885	7.4
FTR53D431K	275	350	430(387~473)	500	710	70000	990	7.6
FTR53D471K	300	385	470(423~517)	500	775	70000	1080	7.9
FTR53D511K	320	415	510(459~561)	500	845	70000	1150	8.1
FTR53D561K	350	460	560(504~616)	500	925	70000	1200	8.6
FTR53D621K	385	505	620(558~682)	500	1025	70000	1300	8.8
FTR53D681K	420	560	680(612~718)	500	1120	70000	1350	9.1
FTR53D751K	460	615	750(675~825)	500	1240	70000	1400	9.5
FTR53D781K	485	640	780(702~858)	500	1290	70000	1450	9.7
FTR53D821K	510	670	820(738~902)	500	1355	70000	1600	9.9
FTR53D911K	550	745	910(819~1001)	500	1500	70000	1700	10.5
FTR53D102K	625	825	1000(900~1100)	500	1650	70000	1890	11.3
FTR53D112K	680	895	1100(990~1210)	500	1815	70000	2050	11.9
FTR53D122K	750	990	1200(1080~1320)	500	1980	70000	2160	12.4
FTR53D142K	880	1140	1400(1260~1540)	500	2310	70000	2300	13.4
FTR53D162K	1000	1280	1600(1440~1760)	500	2640	70000	2500	14.4

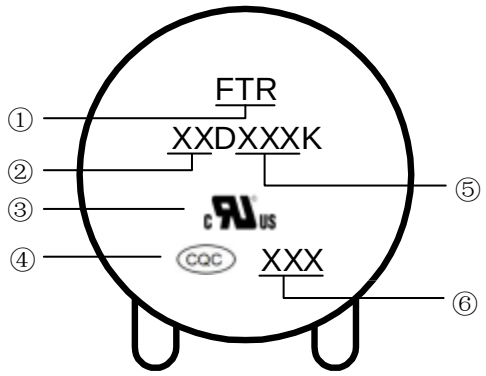
Notes: 1. Leakage Current (@83% of V1mA)： IR≤25μ A (181K~162K)

Dimensions



Symbol	H (max.)	D （max.）	D1 （±1）	L (min.)	K （max.）	W (±0.5)	d (±0.25)	d1 (±0.3)	ΦM (±0.2)	Tmax
Dimension (mm)	78.2	60	25.4	14.5	3.2	9.7	0.7	3.6	3.8	Please refer to the Electrical Characteristics Table

Marking Code



① QG Logo

② Disk Size

③ UL Accreditation Logo

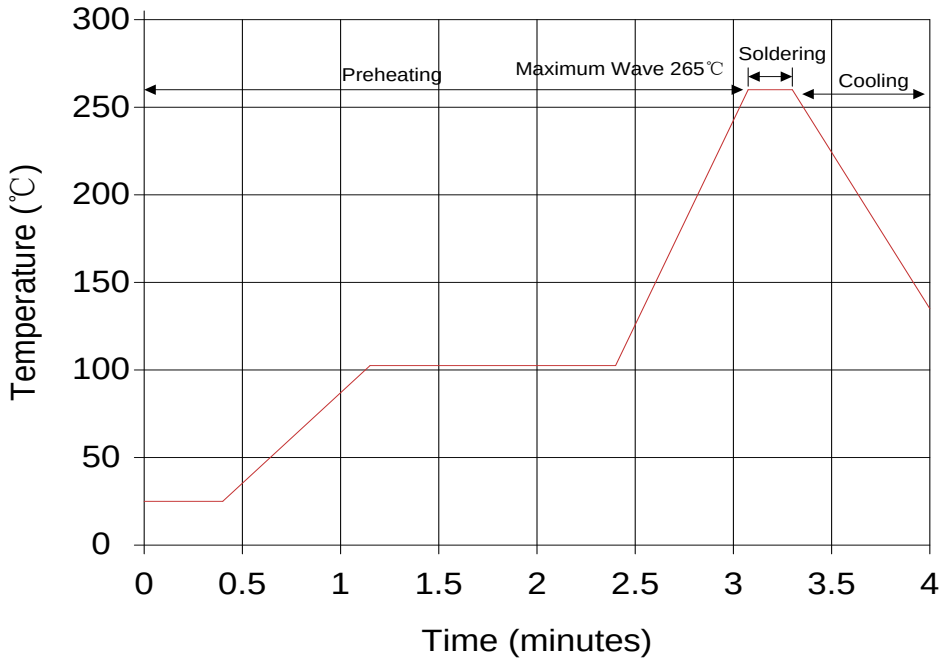
④ CQC Accreditation Logo

⑤ Varistor Voltage

⑥ Date Code

Soldering Recommendation

Wave Lead Free Soldering Recommendation



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

Recommendation Reworking Conditions with Soldering Iron

Item	Conditions
Temperature of Soldering Iron-tip	360℃(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)