

# PRODUCTS

## TUR Zinc Oxide Varistor

Page11

Varistor is a voltage dependent resistor. Which have symmetrical voltage-current characteristics and unparalleled large peak current capability are used for absorption of transient voltage ,suppression of pulse noise and circuit voltage stabilization.

### 1◆◆Features

Low leakage current  
Excellent voltage ratio.  
Wide voltage.  
Fast response time.

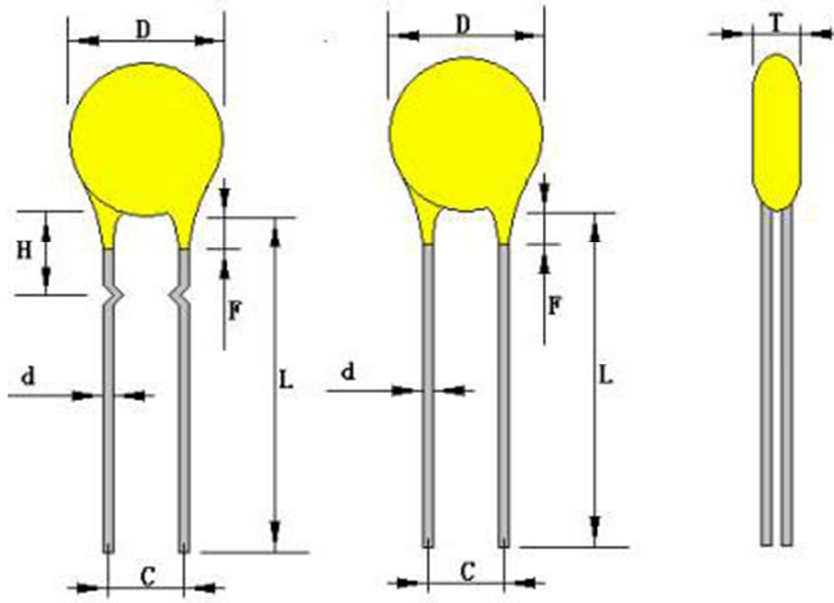
### 2◆◆Application

IC` semiconductor protection.  
Surge voltage protection in communication,measuring,and controller electronics.  
Suppression of main borne transients in industrial electronics and consumer electronics.

### 3◆◆Part number code TUR

TUR	◆◆◆◆D	A B C	K
Jocol varistor	Disk Varistor	voltage=ABX10C	Tolerance:◆◆10%

### 4. Dimensions



Disk	Dmax	Tmax	Lmin	C	H	d	0.05	Fmax
05D	7.5	7.0		5		0.56		
07D	9.5	7.0		5	9			
10D	14	9.5		7.5		0.7		
14D	17.5	12.0	25	7.5				4
20D	24	14.0		10	8			
25D	30	14.0		10		1.0		
32D	36	14.0		10	5			

### 5◆◆Electrical characteristics

05D

Part NO	Varistor voltage	Max allowable voltage		Max peak current	Maximum clamping voltage		Capacitance (reference)
	(V)	AC(V)	DC(V)	(A)	IP(A)	(V)	(PF)
05D180K	18	11	14	100	1	40	1600
05D220K	22	14	18	100	1	48	1300
05D270K	27	17	22	100	1	60	1050
05D330K	33	20	26	100	1	73	900
05D390K	39	25	31	100	1	86	500
05D470K	47	30	38	100	1	104	450
05D560K	56	35	45	100	1	123	400
05D680K	68	40	56	100	1	150	350
05D820K	82	50	65	400	5	145	250
05D101K	100	60	85	400	5	175	200
05D121K	120	75	100	400	5	210	170
05D151K	150	95	125	400	5	260	140
05D181K	180	115	150	400	5	315	110

05D201K	200	130	170	400	5	355	80
05D221K	220	140	180	400	5	380	70
05D241K	240	150	200	400	5	415	70
05D271K	270	175	225	400	5	475	65
05D301K	300	195	250	400	5	525	65
05D331K	330	215	275	400	5	585	60
05D361K	360	230	300	400	5	620	55
05D391K	390	250	320	400	5	675	50
05D431K	430	275	350	400	5	745	45
05D471K	470	300	385	400	5	810	40
05D511K	510	320	410	400	5	880	40
05D561K	560	350	455	400	5	965	35
05D621K	620	385	505	400	5	1070	35
05D681K	680	420	560	400	5	1170	30

#### 07D

Part NO	Varistor	Max allowable		Max peak	Maximum		Capacitance
	voltage	voltage			clamping	voltage	
	(V)	AC(V)	DC(V)	(A)	IP(A)	(V)	(PF)
07D180K	18	11	14	250	2.5	36	3500
07D220K	22	14	18	250	2.5	43	2800
07D270K	27	17	22	250	2.5	53	2000
07D330K	33	20	26	250	2.5	65	1500
07D390K	39	25	31	250	2.5	77	1350
07D470K	47	30	38	250	2.5	93	1150
07D560K	56	35	45	250	2.5	110	1050
07D680K	68	40	56	250	2.5	135	950
07D820K	82	50	65	1200	10	135	900
07D101K	100	60	85	1200	10	165	800
07D121K	120	75	100	1200	10	200	600
07D151K	150	95	125	1200	10	250	500
07D181K	180	115	150	1200	10	300	400
07D201K	200	130	170	1200	10	340	300
07D221K	220	140	180	1200	10	360	300
07D241K	240	150	200	1200	10	395	270
07D271K	270	175	225	1200	10	455	250
07D301K	300	195	250	1200	10	505	240
07D331K	330	215	275	1200	10	555	220
07D361K	360	230	300	1200	10	595	190
07D391K	390	250	320	1200	10	650	180
07D431K	430	275	350	1200	10	710	170
07D471K	470	300	385	1200	10	775	150

07D511K	510	320	410	1200	10	845	130
07D561K	560	350	455	1200	10	925	110
07D621K	620	385	505	1200	10	1025	100
07D681K	420	560	680	1200	10	1120	90

10D

Part NO	Varistor	Max allowable		Max peak	Maximum		Capacitance
	voltage	voltage			clamping	voltage	
	(V)	AC(V)	DC(V)	(A)	IP(A)	(V)	(PF)
10D180K	18	11	14	500	5	36	9000
10D220K	22	14	18	500	5	43	7500
10D270K	27	17	22	500	5	53	6500
10D330K	33	20	26	500	5	65	5500
10D390K	39	25	31	500	5	77	4500
10D470K	47	30	38	500	5	93	4000
10D560K	56	35	45	500	5	110	3500
10D680K	68	40	56	500	5	135	2500
10D820K	82	50	65	2500	25	135	2000
10D101K	100	60	85	2500	25	165	1900
10D121K	120	75	100	2500	25	200	1650
10D151K	150	95	125	2500	25	250	1500
10D181K	180	115	150	2500	25	300	1000
10D201K	200	130	170	2500	25	340	650
10D221K	220	140	180	2500	25	360	610
10D241K	240	150	200	2500	25	395	600
10D271K	270	175	225	2500	25	455	580
10D301K	300	195	250	2500	25	505	560
10D331K	330	215	275	2500	25	555	530
10D361K	360	230	300	2500	25	595	500
10D391K	390	250	320	2500	25	650	480
10D431K	430	275	350	2500	25	710	450
10D471K	470	300	385	2500	25	775	350
10D511K	510	320	410	2500	25	845	300
10D561K	560	350	455	2500	25	925	250
10D621K	620	385	505	2500	25	1025	200
10D681K	680	420	560	2500	25	1120	180
10D751K	750	460	615	2500	25	1240	170
10D821K	820	510	670	2500	25	1355	160
10D911K	910	550	745	2500	25	1500	150
10D102K	1000	625	825	2500	25	1650	140
10D112K	1100	680	895	2500	25	1815	140

14D

Part NO	Varistor voltage	Max allowable voltage		Max peak current	Maximum clamping voltage		Capacitance (reference)
	(V)	AC(V)	DC(V)	(A)	IP(A)	(V)	(PF)
14D180K	18	11	14	1000	10	36	21000
14D220K	22	14	18	1000	10	43	16000
14D270K	27	17	22	1000	10	53	11500
14D330K	33	20	26	1000	10	65	9000
14D390K	39	25	31	1000	10	77	7500
14D470K	47	30	38	1000	10	93	6600
14D560K	56	35	45	1000	10	110	5500
14D680K	68	40	56	1000	10	135	4900
14D820K	82	50	65	4500	50	135	4600
14D101K	100	60	85	4500	50	165	3600
14D121K	120	75	100	4500	50	200	2800
14D151K	150	95	125	4500	50	250	2400
14D181K	180	115	150	4500	50	300	1800
14D201K	200	130	170	4500	50	340	1300
14D221K	220	140	180	4500	50	360	1250
14D241K	240	150	200	4500	50	395	1150
14D271K	270	175	225	4500	50	455	1100
14D301K	300	195	250	4500	50	505	1000
14D331K	330	215	275	4500	50	555	980
14D361K	360	230	300	4500	50	595	930
14D391K	390	250	320	4500	50	650	880
14D431K	430	275	350	4500	50	710	750
14D471K	470	300	385	4500	50	775	620
14D511K	510	320	410	4500	50	845	540
14D561K	560	350	455	4500	50	925	470
14D621K	620	385	505	4500	50	1025	400
14D681K	680	420	560	4500	50	1120	380
14D751K	750	460	615	4500	50	1240	360
14D821K	820	510	670	4500	50	1355	360
14D911K	910	550	745	4500	50	1500	340
14D102K	1000	625	825	4500	50	1650	320
14D112K	1100	680	895	4500	50	1815	280

20D

Part NO	Varistor voltage	Max allowable voltage		Max peak current	Maximum clamping voltage		Capacitance (reference)
	(V)	AC(V)	DC(V)	(A)	IP(A)	(V)	(PF)
20D180K	18	11	14	2000	20	36	43000

20D220K	22	14	18	2000	20	43	33000
20D270K	27	17	22	2000	20	53	25000
20D330K	33	20	26	2000	20	65	19500
20D390K	39	25	31	2000	20	77	17500
20D470K	47	30	38	2000	20	93	15500
20D560K	56	35	45	2000	20	110	13000
20D680K	68	40	56	2000	20	135	10000
20D820K	82	50	65	6500	100	135	6000
20D101K	100	60	85	6500	100	165	5000
20D121K	120	75	100	6500	100	200	4500
20D151K	150	95	125	6500	100	250	3200
20D181K	180	115	150	6500	100	300	2500
20D201K	200	130	170	6500	100	340	2000
20D221K	220	140	180	6500	100	360	2000
20D241K	240	150	200	6500	100	395	1800
20D271K	270	175	225	6500	100	455	1600
20D301K	300	195	250	6500	100	505	1500
20D331K	330	215	275	6500	100	555	1400
20D361K	360	230	300	6500	100	595	1200
20D391K	390	250	320	6500	100	650	1100
20D431K	430	275	350	6500	100	710	1050
20D471K	470	300	385	6500	100	775	950
20D511K	510	320	410	6500	100	845	860
20D561K	560	350	455	6500	100	925	780
20D621K	620	385	505	6500	100	1025	700
20D681K	680	420	560	6500	100	1120	650
20D751K	750	460	615	6500	100	1240	600
20D821K	820	510	670	6500	100	1355	530
20D911K	910	550	745	6500	100	1500	500
20D102K	1000	625	825	6500	100	1650	450
20D112K	1100	680	895	6500	100	1815	40