

規格承認書

SPECIFICATION FOR APPROVAL

Rev1.0	SPECIFICATION	NO.		
PART NO.	ZOV53D201K~162K	PAGE: 1 OF 5		
		DATE: 2017年10月18日		
UL	E315524	CSA	LR115266	VDE /

1.OUTLINE

1.1 DIMENSIONS

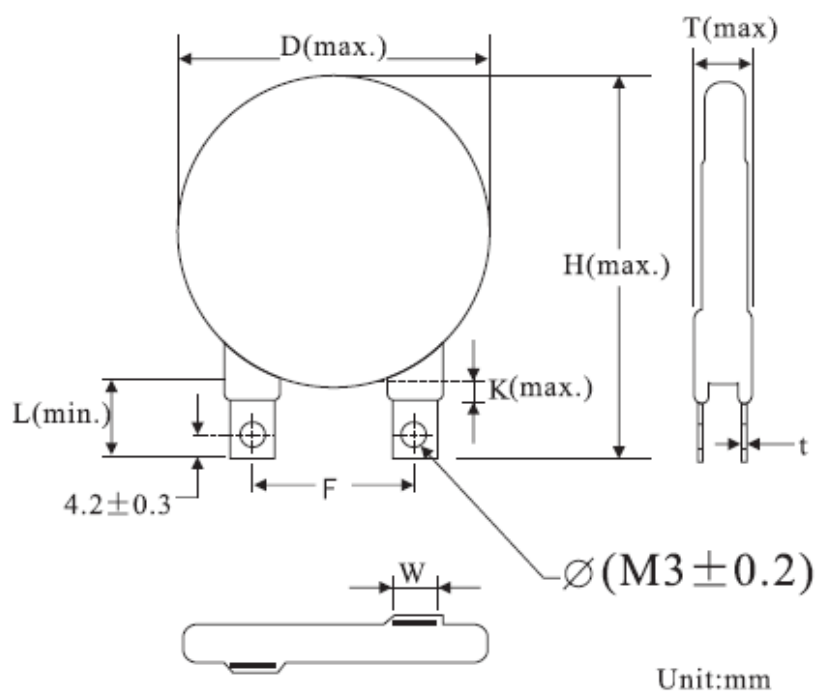


Table1	
Unit:mm	
Symbol	Dimension
D(max.)	60.0
H(max.)	78.2
F(±1.0)	25.4
T(max.)	Table2
t(±0.25)	0.7
L(min.)	14.5
K(max.)	3.2
W(±0.5)	9.7
ΦM3(±0.2)	3.8
Epoxy Colour : Green	

Table2			
Unit:mm			
Model	T	Model	T
201K	6.3	751K	9.5
241K	6.5	781K	9.7
271K	6.7	821K	9.9
331K	7.0	911K	10.5
361K	7.2	951K	10.7
391K	7.4	102K	11.3
431K	7.6	112K	11.9
471K	7.9	122K	12.4
511K	8.1	142K	13.4
621K	8.8	162K	14.4
681K	9.1		

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Electrical characteristics

ZOV Part Number	Maximum Allowable Voltage		Varistor voltage V1.0 mA	IR3 μA	@	Maximum Clamping Voltage		Withstanding Surge Current		Maximum Ebergt (JOULE) 10/1000μs	Typical Capacitance (Reference) @1KHz (pf)
	Ac.rms	DC				VC	IP	1 time	2 times		
	(V)	(V)	(V)	(A)		(A)					
53D201K	130	170	200(185-225)	40	21	340	500	70000	50000	550	15000
53D241K	150	200	240(216-264)			395				650	12500
53D271K	175	225	270(243-297)			455				700	11000
53D331K	210	275	330(297-363)			550				825	9000
53D361K	230	300	360(324-396)			595				850	8500
53D391K	250	320	390(351-429)			650				885	7500
53D431K	275	350	430(387-473)			710				990	7000
53D471K	300	385	470(423-517)			775				1080	6500
53D511K	320	415	510(459-561)			845				1150	6000
53D621K	385	505	620(558-682)			1025				1300	5000
53D681K	420	560	680(612-748)			1120				1350	4500
53D751K	460	615	750(675-825)			1240				1400	4000
53D781K	485	640	780(702-858)			1290				1450	3900
53D821K	510	670	820(738-902)			1355				1600	3700
53D911K	550	745	910(819-1001)			1500				1700	3300
53D951K	575	765	950(855-1045)			1570				1800	3200
53D102K	625	825	1000(900-1100)			1650				1890	3000
53D112K	680	895	1100(990-1210)			1815				2050	2700
53D122K	750	990	1200(1080-1320)			1980				2160	2500
53D142K	880	1140	1400(1260-1540)			2310				2300	2150
53D162K	1000	1280	1600(1440-1760)	2640	2500	1900					

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2.ELETRICAL PARAMETER

2.1	Max. Allowable Voltage	Reference p2*	At 1.0mA DC
2.2	Varistor Voltage(Test Time For 30ms)		V0.1mA □ V1mA ■
2.3	Rated Wattage		
2.4	Max. Clamping Voltage		Test Current Waveform 8/20μs
2.5	Withstanding Surge Current		Test Current Waveform 8/20μs
2.6	Max. Energy		Test Current Waveform 10/1000μs
2.7	Typical Capacitance		@1KHz
2.8	Leakage Current		At 80% of Varistor Voltage
2.9	Nonlinear Exponent (α)		$\alpha = \log \frac{I_1}{I_2} / \log \frac{V_1}{V_2}$
2.10	Impulse Life		≅ ±10%(V1mA)

3.MATERIAL LIST

3.1	Drawing	略		
3.2	Material Chart RoHs	Item	Composition	Manufacturer
		Coating	Epoxy Resin	Made in China, and in line with the UL 94-V0 testing, meet the environmental requirements
		Lead	Cu wire	Made in China, meet the environmental requirements
		Electrode	Silver	Made in China, meet the environmental requirements
		Disk	Zinc Oxide	Made in China, meet the environmental requirements
		Solder	Sn:96.5%CU 0.5%Ag3.0%	Made in China, meet the environmental requirements

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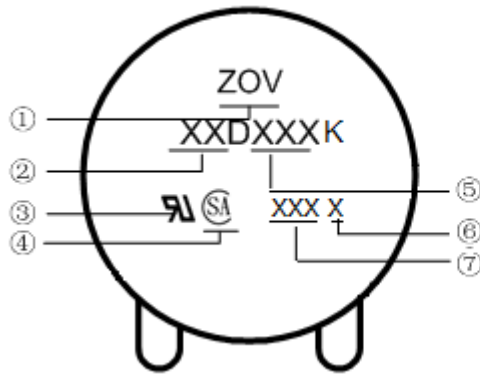
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4.MECHANICAL REQUIREMENTS					
4.1	Tensile of Terminations	No Outstanding Damage	1.0Kgf; 10Sec.		
4.2	Bending of Terminations	No Outstanding Damage	0.5Kgf; 90° ,3 Times		
4.3	Vibration	No Outstanding Damage	Freq:10-55hz;Amp:0.75mm,1Min		
4.4	Solderability	Min. 95% of The Terminal Should Be Covered With Solder Uniformly	Solder Temp:245±5°C Immersed Time: ≤5Sec.		
4.5	Resistance of soldering heat	$\Delta V1mA/V1mA$ $\cong \pm 5\%$	Solder Temp: 260±5°C Immersed Time: 10±1Sec.		
5.ENVIRONMENTAL REQUIREMENTS					
5.1	High Temperature Storage	$\Delta V1mA/V1mA$ $\cong \pm 5\%$	Ambient Temp: 125±2°C Duration:1000h		
5.2	Low Temperature Storage	$\Delta V1mA/V1mA$ $\cong \pm 5\%$	Ambient Temp: -40±2°C Duration:1000h		
5.3	High Humidity Storage/Damp Heat	$\Delta V1mA/V1mA$ $\cong \pm 5\%$	Ambient Temp: 40±2°C 90-95% R.H. Duration:1000h		
5.4	Temperature Cycle	$\Delta V1mA/V1mA$ $\cong \pm 5\%$	Step	Temperature (°C)	Period (min)
			1	-40±3	30 ±3
			2	Room Temp	15 ±3
			3	85±3	30 ±3
4	Room Temp	15 ±3			
5.5	High Temperature Load	$\Delta V1mA/V1mA$ $\cong \pm 10\%$	Ambient temp:85±2°C Duration:1000h Load: MAX. Allowable Voltage		
5.6	High Humidity Load	$\Delta V1mA/V1mA$ $\cong \pm 10\%$	Ambient Temp: 40±2°C 90-95%R.H.Duration:1000H Load: MAX. Allowable Voltage		
5.7	Operating Temperature Range	-40°C ~ +85°C			
5.8	Storage Temperature Range	-40°C ~ +125°C			

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6. MARKING CODE



- ① ZOV Logo
- ② Disk Size
- ③ UL Accreditation Logo
- ④ CSA Accreditation Logo
- ⑤ Varistor Voltage
- ⑥ Special standard P: Normal code
- ⑦ Date Code

7. QUANTITY

Packaging Dimensions (Unit: mm)	Quantity
Bulk 	60pcs/box (201K~511K)
	30pcs/box (621K~162K)