

1500W Transient Voltage Suppressors


TVS Diodes - 1500W > 1.5KE Series



Description

The 1.5KE series is designed specifically to protect sensitive electronic equipment from voltage transients induced by lightning and other transient voltage events.

Features

- Plastic material has UL flammability classification 94V-O
- Typical IR less than 1uA above 12V
- Fast response time
- Glass passivated junction
- Low zener impedance • Excellent clamping capability
- High Temperature soldering: 260°C/10 seconds at terminals
- Agency recognition: 



Package: DO-201

Applications

- I/O interface • AC/DC power supply
- Low frequency signal transmission line (RS232, RS485, etc.)

Electrical Characteristics

Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation at TA=25°C by 10 / 1000µs waveform (Fig.1)(Note 1)	PPPM	1500	W
Steady state power dissipation at TL=75°C (Fig.5)	PM(AV)	6.5	W
Peak Forward Surge Current, 8.3ms Single Half Sine Wave superimposed on rated load, (JEDEC Method) (Note2, Fig.6)	IFSM	200	A
Operating Junction and Storage Temperature Range	TJ, TSTG	-55 to 175	°C
Typical Thermal Resistance Junction to Lead	RθJL	15	°C/W
Typical Thermal Resistance Junction to Ambient	RθJA	75	°C/W

Notes:

1. Non-repetitive current pulse, per Fig.3 and derated above TA=25°C per Fig. 2.
2. 8.3ms single half sine-wave, or equivalent square wave, duty cycle=4 pulses per minutes maximum.

Electrical Characteristics (TA=25°C)

Part Number		Reverse Stand-Off Voltage	Breakdown Voltage V _{BR} (Volts)@I _T		Test Current	Maximum Clamping Voltage @I _{PP}	Peak Pulse Current	Reverse Leakage @V _{RWM}	Safety Certification	Delivery Time
Uni-Polar	Bi-polar	V _{RWM} (V)	Min	Max	I _T (mA)	V _C (V)	I _{PP} (A)	I _R (μA)	UL	days
1.5KE6.8A	1.5KE6.8CA	5.80	6.45	7.14	10	10.5	144.8	1000	√	7days
1.5KE7.5A	1.5KE7.5CA	6.40	7.13	7.88	10	11.3	134.5	500	√	7days
1.5KE8.2A	1.5KE8.2CA	7.02	7.79	8.61	10	12.1	125.6	200	√	7days
1.5KE9.1A	1.5KE9.1CA	7.78	8.65	9.5	1	13.4	113.4	50	√	7days
1.5KE10A	1.5KE10CA	8.55	9.5	10.5	1	14.5	104.8	10	√	7days
1.5KE11A	1.5KE11CA	9.40	10.5	11.6	1	15.6	97.4	5	√	7days
1.5KE12A	1.5KE12CA	10.20	11.4	12.6	1	16.7	91	5	√	7days
1.5KE13A	1.5KE13CA	11.1	12.4	13.7	1	18.2	83.5	1	√	7days
1.5KE15A	1.5KE15CA	12.8	14.3	15.8	1	21.2	71	1	√	7days
1.5KE16A	1.5KE16CA	13.6	15.2	16.8	1	22.5	67.6	1	√	7days
1.5KE18A	1.5KE18CA	15.3	17.1	18.9	1	25.2	60.3	1	√	7days
1.5KE20A	1.5KE20CA	17.1	19	21	1	27.7	54.9	1	√	7days
1.5KE22A	1.5KE22CA	18.8	20.9	23.1	1	30.6	49.7	1	√	7days
1.5KE24A	1.5KE24CA	20.5	22.8	25.2	1	33.2	45.8	1	√	7days
1.5KE27A	1.5KE27CA	23.1	25.7	28.4	1	37.5	40.5	1	√	7days
1.5KE30A	1.5KE30CA	25.6	28.5	31.5	1	41.4	36.7	1	√	7days
1.5KE33A	1.5KE33CA	28.2	31.4	34.7	1	45.7	33.3	1	√	7days
1.5KE36A	1.5KE36CA	30.8	34.2	37.8	1	49.9	30.5	1	√	7days
1.5KE39A	1.5KE39CA	33.3	37.1	41	1	53.9	28.2	1	√	7days
1.5KE43A	1.5KE43CA	36.8	40.9	45.2	1	59.3	25.6	1	√	7days
1.5KE47A	1.5KE47CA	40.2	44.7	49.4	1	64.8	23.5	1	√	7days
1.5KE51A	1.5KE51CA	43.6	48.5	53.6	1	70.1	21.7	1	√	7days
1.5KE56A	1.5KE56CA	47.8	53.2	58.8	1	77	19.7	1	√	7days
1.5KE62A	1.5KE62CA	53	58.9	65.1	1	85	17.9	1	√	7days

Electrical Characteristics (TA=25°C)

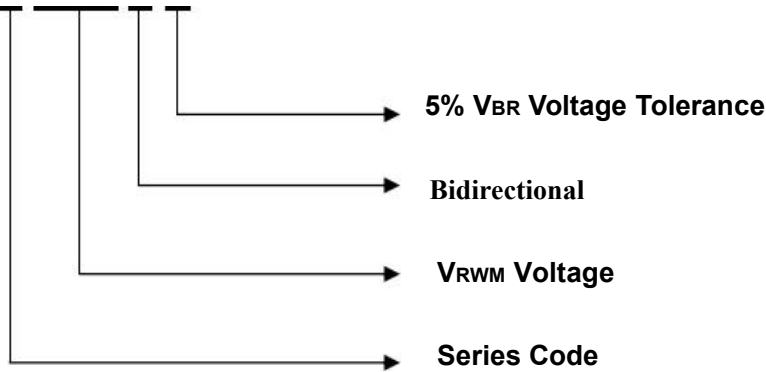
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Part Number		Reverse Stand-Off Voltage	Breakdown Voltage V _{BR} (Volts)@I _T		Test Current	Maximum Clamping Voltage @I _{PP}	Peak Pulse Current	Reverse Leakage @V _{RWM}	Safety Certification	Delivery Time
Uni-Polar	Bi-polar	V _{RWM} (V)	Min	Max	I _T (mA)	V _C (V)	I _{PP} (A)	I _R (μA)	UL	days
1.5KE68A	1.5KE68CA	58.1	64.6	71.4	1	92	16.5	1	√	7days
1.5KE75A	1.5KE75CA	64.1	71.3	78.8	1	103	14.8	1	√	7days
1.5KE82A	1.5KE82CA	70.1	77.9	86.1	1	113	13.5	1	√	7days
1.5KE91A	1.5KE91CA	77.8	86.5	95.5	1	125	12.2	1	√	7days
1.5KE100A	1.5KE100CA	85.5	95	105	1	137	11.1	1	√	7days
1.5KE110A	1.5KE110CA	94	105	116	1	152	10	1	√	7days
1.5KE120A	1.5KE120CA	102	114	126	1	165	9.2	1	√	7days
1.5KE130A	1.5KE130CA	111	124	137	1	179	8.5	1	√	7days
1.5KE150A	1.5KE150CA	128	143	158	1	207	7.3	1	√	7days
1.5KE160A	1.5KE160CA	136	152	168	1	219	6.9	1	√	7days
1.5KE170A	1.5KE170CA	145	162	179	1	234	6.5	1	√	7days
1.5KE180A	1.5KE180CA	154	171	189	1	246	6.2	1	√	7days
1.5KE200A	1.5KE200CA	171	190	210	1	274	5.5	1	√	7days
1.5KE220A	1.5KE220CA	185	209	231	1	328	4.6	1	√	7days
1.5KE250A	1.5KE250CA	214	237	263	1	344	4.4	1	√	7days
1.5KE300A	1.5KE300CA	256	285	315	1	414	3.7	1	√	7days
1.5KE350A	1.5KE350CA	300	332	368	1	482	3.2	1	√	7days
1.5KE400A	1.5KE400CA	342	380	420	1	548	2.8	1	√	7days
1.5KE440A	1.5KE440CA	376	418	462	1	602	2.5	1	√	7days
1.5KE480A	1.5KE480CA	408	456	504	1	658	2.3	1	√	7days
1.5KE510A	1.5KE510CA	434	485	535	1	698	2.1	1	√	7days
1.5KE530A	1.5KE530CA	450	503.5	556.5	1	725	2.1	1	√	7days
1.5KE540A	1.5KE540CA	459	513	567	1	740	2	1	√	7days
1.5KE550A	1.5KE550CA	467	522.5	577.5	1	760	2	1	√	7days

Notes: For bidirectional type having V_{RWM} of 10 volts and less, the I_R limit is double.

Description of Part Number

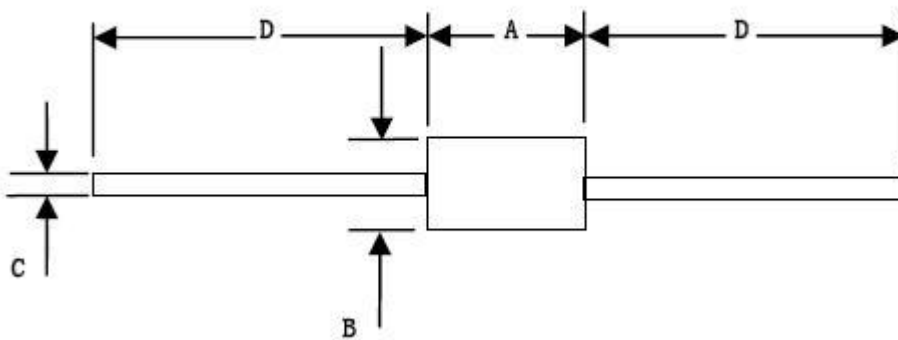
1.5KE XXX C A



Packing Options

Package Type	Description	Packing Quantity	Industry Standard
DO-201	Tape and Reel Pack	1000PCS	EIA STD RS-296

Dimensions - DO-201



Dimension	Inches		Millimeters	
	Min	Max	Min	Max
A	0.285	0.375	7.20	9.50
B	0.190	0.210	4.80	5.30
C	0.038	0.042	0.96	1.07
D	1.000		25.4	