



# 1.5KE10AS ~ 1.5KE250CAS Series

**Transient Voltage Suppressor**  
 **Recognized File # E210467**

**Voltage** 10~250 V **Power** 1500 W

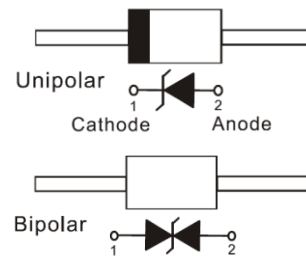
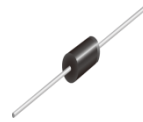
## Features

- Fast response time
- Low incremental surge resistance
- High temperature soldering : 260°C /10 seconds at terminals
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

## Mechanical Data

- Case: DO-201AE Package
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.04 ounces, 1.12 grams

DO-201AE



## Maximum Ratings and Thermal Characteristics (T<sub>A</sub> = 25 °C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Peak Pulse Power Dissipation(tp = 10 / 1000 us)	P <sub>PP</sub> <sup>(1) (2)</sup>	1500	W
Peak Pulse Current on tp = 10 / 1000 us waveform <sup>(Fig.2)</sup>	I <sub>PPM</sub> <sup>(1)</sup>	See table 1	A
Power Dissipation on Infinite Heat Sink at T <sub>L</sub> = 75 °C	P <sub>D</sub>	6.5	W
ESD IEC61000-4-2(Air)	V <sub>ESD</sub>	±30	kV
ESD IEC61000-4-2(Contact)		±30	
Typical Thermal Resistance Junction to Ambient	R <sub>θJA</sub> <sup>(3)</sup>	55	°C/W
Operating Junction Temperature Range	T <sub>J</sub>	-55~150	°C
Storage Temperature Range	T <sub>STG</sub>	-55~150	°C



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## Electrical Characteristics (T<sub>A</sub> = 25 °C unless otherwise noted)

Part Number		V <sub>RWM</sub>	V <sub>BR</sub>			I <sub>R</sub>		V <sub>C@IPP</sub>		Marking Code	
			Min.	Max.	I <sub>T</sub>	@V <sub>RWM</sub>	uA				
UNI	BI	V	V	V	mA	UNI	BI	V	A	UNI	BI
1500W Transient Voltage Suppressor											
1.5KE10AS	1.5KE10CAS	8.55	9.5	10.5	1	10	20	14.5	103	1.5KE10AS	1.5KE10CAS
1.5KE11AS	1.5KE11CAS	9.4	10.5	11.6	1	5	10	15.6	96	1.5KE11AS	1.5KE11CAS
1.5KE12AS	1.5KE12CAS	10.2	11.4	12.6	1	5	5	16.7	90	1.5KE12AS	1.5KE12CAS
1.5KE13AS	1.5KE13CAS	11.1	12.4	13.7	1	1	1	18.2	82	1.5KE13AS	1.5KE13CAS
1.5KE15AS	1.5KE15CAS	12.8	14.3	15.8	1	1	1	21.2	71	1.5KE15AS	1.5KE15CAS
1.5KE16AS	1.5KE16CAS	13.6	15.2	16.8	1	1	1	22.5	67	1.5KE16AS	1.5KE16CAS
1.5KE18AS	1.5KE18CAS	15.3	17.1	18.9	1	1	1	25.2	59.5	1.5KE18AS	1.5KE18CAS
1.5KE20AS	1.5KE20CAS	17.1	19	21	1	1	1	27.7	54	1.5KE20AS	1.5KE20CAS
1.5KE22AS	1.5KE22CAS	18.8	20.9	23.1	1	1	1	30.6	49	1.5KE22AS	1.5KE22CAS
1.5KE24AS	1.5KE24CAS	20.5	22.8	25.2	1	1	1	33.2	45	1.5KE24AS	1.5KE24CAS
1.5KE27AS	1.5KE27CAS	23.1	25.7	28.4	1	1	1	37.5	40	1.5KE27AS	1.5KE27CAS
1.5KE30AS	1.5KE30CAS	25.6	28.5	31.5	1	1	1	41.4	36	1.5KE30AS	1.5KE30CAS
1.5KE33AS	1.5KE33CAS	28.2	31.4	34.7	1	1	1	45.7	33	1.5KE33AS	1.5KE33CAS
1.5KE36AS	1.5KE36CAS	30.8	34.2	37.8	1	1	1	49.9	30	1.5KE36AS	1.5KE36CAS
1.5KE39AS	1.5KE39CAS	33.3	37.1	41	1	1	1	53.9	28	1.5KE39AS	1.5KE39CAS
1.5KE43AS	1.5KE43CAS	36.8	40.9	45.2	1	1	1	59.3	25.3	1.5KE43AS	1.5KE43CAS
1.5KE47AS	1.5KE47CAS	40.2	44.7	49.4	1	1	1	64.8	23.2	1.5KE47AS	1.5KE47CAS
1.5KE51AS	1.5KE51CAS	43.6	48.5	53.6	1	1	1	70.1	21.4	1.5KE51AS	1.5KE51CAS
1.5KE56AS	1.5KE56CAS	47.8	53.2	58.8	1	1	1	77	19.5	1.5KE56AS	1.5KE56CAS
1.5KE62AS	1.5KE62CAS	53	58.9	65.1	1	1	1	85	17.7	1.5KE62AS	1.5KE62CAS
1.5KE68AS	1.5KE68CAS	58.1	64.6	71.4	1	1	1	92	16.3	1.5KE68AS	1.5KE68CAS
1.5KE75AS	1.5KE75CAS	64.1	71.3	78.8	1	1	1	103	14.6	1.5KE75AS	1.5KE75CAS
1.5KE82AS	1.5KE82CAS	70.1	77.9	86.1	1	1	1	113	13.3	1.5KE82AS	1.5KE82CAS
1.5KE91AS	1.5KE91CAS	77.8	86.5	95.5	1	1	1	125	12	1.5KE91AS	1.5KE91CAS
1.5KE100AS	1.5KE100CAS	85.5	95	105	1	1	1	137	11	1.5KE100AS	1.5KE100CAS
1.5KE110AS	1.5KE110CAS	94	105	116	1	1	1	152	9.9	1.5KE110AS	1.5KE110CAS
1.5KE120AS	1.5KE120CAS	102	114	126	1	1	1	165	9.1	1.5KE120AS	1.5KE120CAS
1.5KE130AS	1.5KE130CAS	111	124	137	1	1	1	179	8.4	1.5KE130AS	1.5KE130CAS
1.5KE150AS	1.5KE150CAS	128	143	158	1	1	1	207	7.2	1.5KE150AS	1.5KE150CAS



## 1.5KE10AS ~ 1.5KE250CAS Series

### Electrical Characteristics ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

Part Number		VRW M	VBR			IR @VRWM		VC@IPP		Marking Code	
			Min.	Max.	IT	uA					
UNI	BI	V	V	V	mA	UNI	BI	V	A	UNI	BI
1500W Transient Voltage Suppressor											
1.5KE160AS	1.5KE160CAS	136	152	168	1	1	1	219	6.8	1.5KE160AS	1.5KE160CAS
1.5KE170AS	1.5KE170CAS	145	162	179	1	1	1	234	6.4	1.5KE170AS	1.5KE170CAS
1.5KE180AS	1.5KE180CAS	154	171	189	1	1	1	246	6.1	1.5KE180AS	1.5KE180CAS
1.5KE200AS	1.5KE200CAS	171	190	210	1	1	1	274	5.5	1.5KE200AS	1.5KE200CAS
1.5KE220AS	1.5KE220CAS	185	209	231	1	1	1	328	4.6	1.5KE220AS	1.5KE220CAS
1.5KE250AS	1.5KE250CAS	214	237	263	1	1	1	344	4.5	1.5KE250AS	1.5KE250CAS

**Notes :**

1. Non-repetitive current pulse, per Fig.3 and derated above  $T_A=25^\circ\text{C}$  per Fig.2
2. Mounted on 100cm<sup>2</sup> copper pads to each terminal
3. Mounted on a FR4 PCB, single-sided copper, standard footprint



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## TYPICAL CHARACTERISTIC CURVES

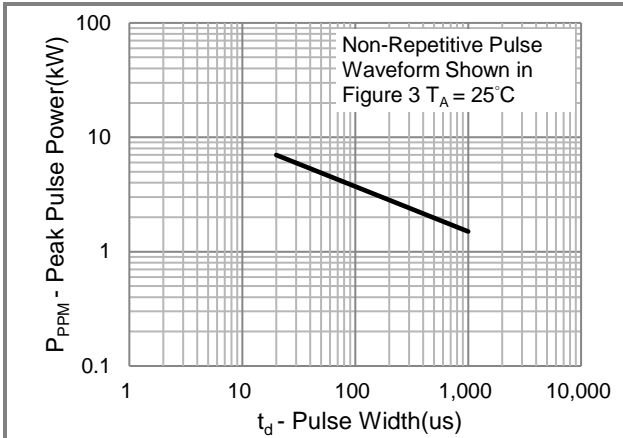


Fig.1 Pulse Power Rating Curve



Fig.2 Derating Curve

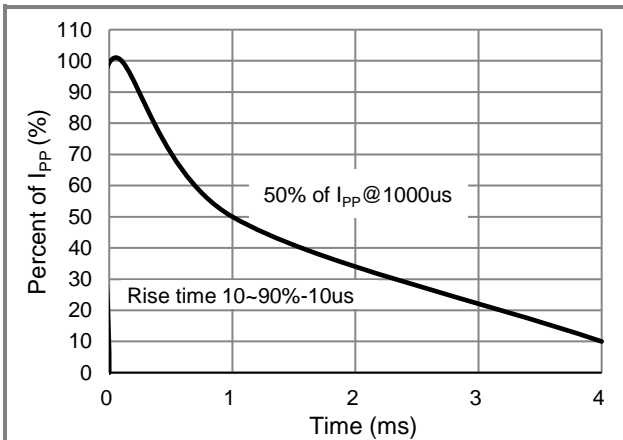


Fig.3 10/1000us Pulse Waveform

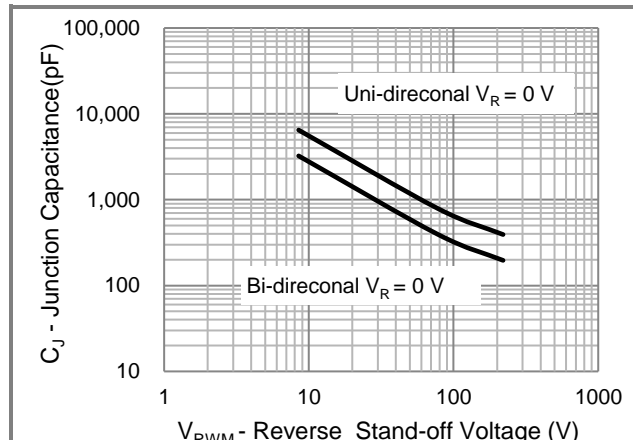


Fig.4 Typical Capacitance

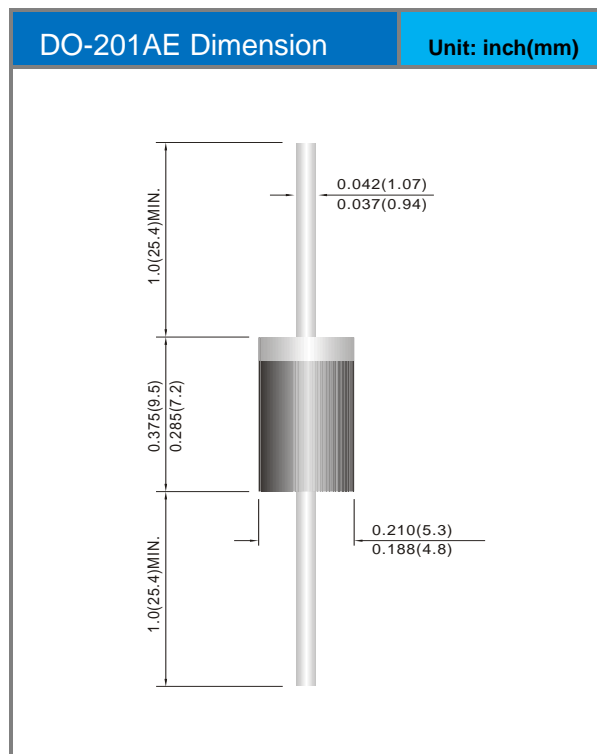


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## Part No. Packing Code Version

Part No. Packing Code	Package Type	Packing Type	Marking	Version
1.5KExxxxAS_AY_00001	DO-201AE	1250pcs / Ammo	See Table	Halogen free RoHS compliant

## Packaging Information





## 1.5KE10AS ~ 1.5KE250CAS Series

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