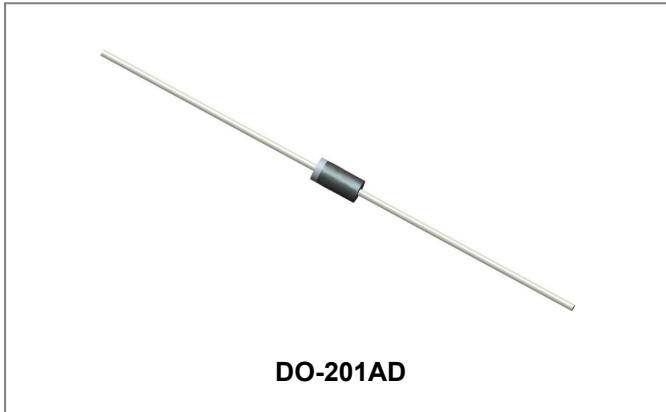


## 1.5KE550CA TRANSIENT VOLTAGE SUPPRESSOR



### Features

- Low incremental surge resistance.
- Excellent clamping capability.
- High temperature wave soldering: 265°C/10s at terminals.
- Plastic package has underwriters laboratory flammability 94V-0.
- 1500W peak pulse power capability at 10×1000 μs waveform.
- Fast response time: typically less than 1.0ps from 0V to VBR min.
- This is a Pb – Free Device
- All SMC Parts are Traceable to the Wafer Lot
- Additional testing can be offered upon request

### Circuit Diagram



### Mechanical Data

The 1.5KE550CA of high current bi-directional transient suppressors are designed for A.C. line protection and high power DC bus clamping applications. They provide a clamping voltage lower than the avalanche voltage. Therefore, any voltage rise due to increased current conduction is contained to a minimum, providing the best possible protection level. They can also be connected in series and/or parallel to create very high capacity protection solutions.

### Absolute Maximum Ratings@ $T_A=25^{\circ}\text{C}$ , RH=45%-75%, unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak pulse power dissipation on 10/1000μs waveform	$P_{PPM}$	1500	W
Steady state power dissipation at $T_L=75^{\circ}\text{C}$	$P_{M(AV)}$	6.5	W
Typical Thermal Resistance Junction to Lead	$R_{\theta JL}$	15	$^{\circ}\text{C/W}$
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	75	$^{\circ}\text{C/W}$
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to + 150	$^{\circ}\text{C}$

**Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified**

BI-POLAR	REVERSE STAND-OFF VOLTAGE V <sub>RWM</sub> (V)	BREAKDOWN VOLTAGE V <sub>BR</sub> (V) MIN. @I <sub>T</sub>	BREAKDOWN VOLTAGE V <sub>BR</sub> (V) MAX. @I <sub>T</sub>	TEST CURRENT I <sub>T</sub> (MA)	MAXIMUM CLAMPING VOLTAGE @I <sub>PP</sub> V <sub>C</sub> (V)	PEAK PULSE CURRENT I <sub>PP</sub> <sup>(1)</sup> (A)	REVERSE LEAKAGE @V <sub>RWM</sub> I <sub>R</sub> (uA)
1.5KE550CA	468	522.5	557.5	1	828	1.8	1

Notes: 1. Surge waveform:10/1000µs.

**Ratings and Characteristics Curves**

FIG.1: Pulse waveform

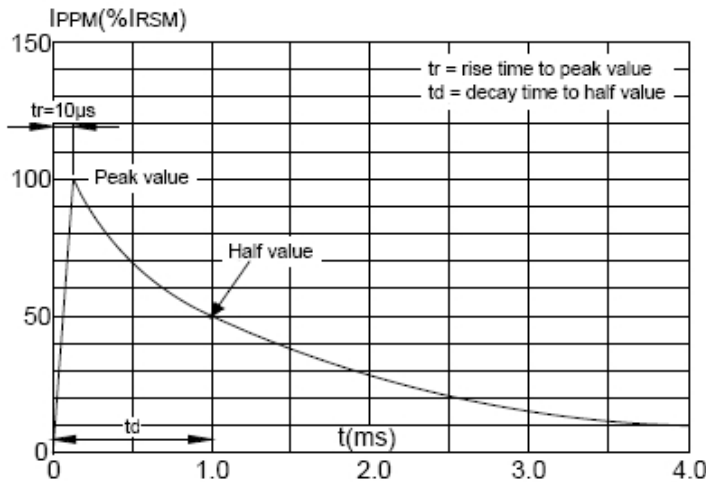
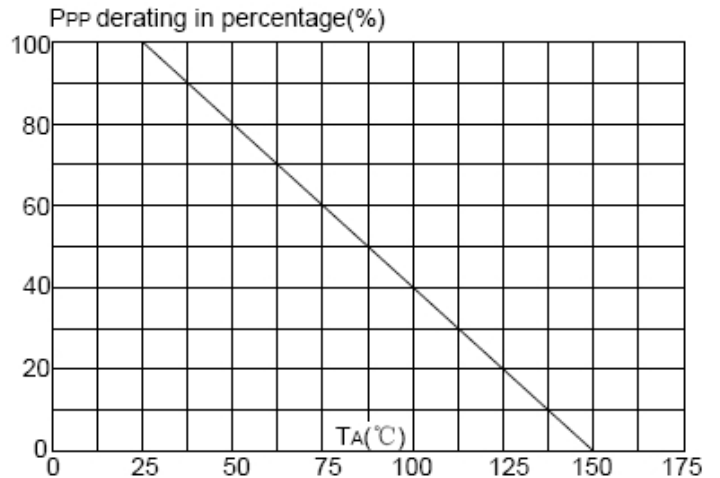
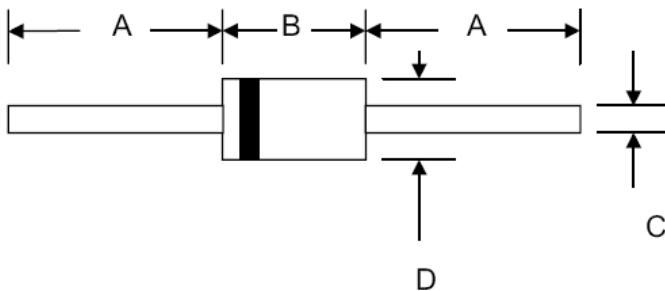


FIG.2: Pulse derating curve



**Mechanical Dimensions DO-201AD**



SYMBOL	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	25.4	-	1.000	-
B	7.20	9.60	0.283	0.378
C	0.96	1.20	0.038	0.047
D	4.80	5.40	0.189	0.213

### Ordering Information

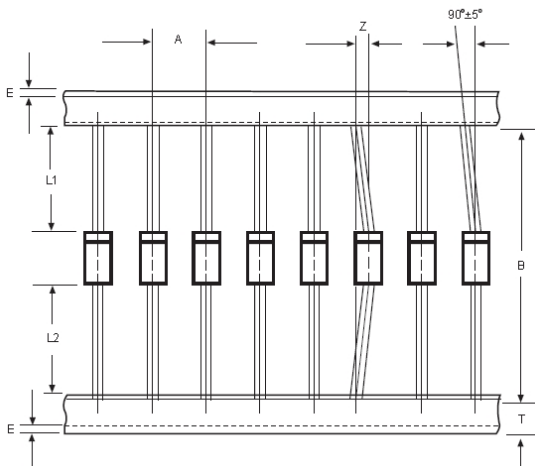
Device	Package	Shipping
1.5KE550CA	DO-201AD (Pb-Free)	1000pcs / tape
1.5KE550CATA	DO-201AD (Pb-Free)	1000pcs / tape

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

### Marking Diagram



### Carrier Tape Specification DO-201AD



SYMBOL	Millimeters	
	Min.	Max.
A	9.50	10.50
B	50.9	53.9
Z	-	1.20
T	5.60	6.40
E	-	0.80
IL1-L2I	-	1.0

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