

	<b>E480232</b>
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**Features**

- Economical Series and Quick Response
- Available in Both Unidirectional and Bidirectional Construction
- Excellent Clamping Capability
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

**Application**

- This Series Has a Peak Pulse Power Rating of 1500 Watts for One Millisecond. It Can Protect Intergrated Circuit,Hybrids,CMOS,MOS, and Other Voltage Sensitive Components in a Board Range of Applications Such as Telecommunications,Power Supplies,Computer, Automotive,and Industrial Equipment.

**Maximum Ratings**

- Operating Junction Temperature Range: -55°C to +175°C
- Storage Temperature Range: -55°C to +175°C

Peak Pulse Power Dissipation	P <sub>PP</sub>	1500W	T <sub>A</sub> =25°C
Steady State Power Dissipatoin	P <sub>D</sub>	5.0 W	T <sub>L</sub> =75°C
t <sub>clamping</sub> (0 Volts to V <sub>(BR)</sub> Min):	Unidirectional<1x10 <sup>-12</sup> Seconds;		
	Bidirectoinal<5x10 <sup>-9</sup> Seconds		

1.High Temperature Solder Exemption Applied, see EU Directive Annex 7a.

**Device Marking:**

Unidirectional - Type Number and Cathode Band  
Bidirectional - Type Number Only

Pin Configuration



# 1500W TVS

## 6.8V to 550V

DO-201AE

DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	----	0.370	----	9.50	
B	----	0.209	----	5.30	
C	0.038	0.042	0.96	1.06	
D	1.000	----	25.40	----	

MCC PART NUMBER		REVERSE STAND-OFF VOLTAGE $V_{RWM}(V)$	BREAKDOWN VOLTAGE $V_{BR}(V)$ MIN.@ $I_T$	BREAKDOWN VOLTAGE $V_{BR}(V)$ MAX.@ $I_T$	TEST CURRENT $I_T$ (mA)	MAXIMUM CLAMPING VOLTAGE @ $I_{pp}$ $V_c(V)$	PEAK PULSE CURRENT $I_{pp}$ (A)	REVERSE LEAKAGE @ $V_{RWM}$ $I_R(\mu A)$
UNI-POLAR	BI-POLAR							
1.5KE6.8A	1.5KE6.8CA	5.80	6.45	7.14	10	10.5	144.8	1000
1.5KE7.5A	1.5KE7.5CA	6.40	7.13	7.88	10	11.3	134.5	500
1.5KE8.2A	1.5KE8.2CA	7.02	7.79	8.61	10	12.1	125.6	200
1.5KE9.1A	1.5KE9.1CA	7.78	8.65	9.50	1	13.4	113.4	50
1.5KE10A	1.5KE10CA	8.55	9.50	10.50	1	14.5	104.8	10
1.5KE11A	1.5KE11CA	9.40	10.50	11.60	1	15.6	97.4	5
1.5KE12A	1.5KE12CA	10.20	11.40	12.60	1	16.7	91.0	5
1.5KE13A	1.5KE13CA	11.10	12.40	13.70	1	18.2	83.5	5
1.5KE15A	1.5KE15CA	12.80	14.30	15.80	1	21.2	71.7	5
1.5KE16A	1.5KE16CA	13.60	15.20	16.80	1	22.5	67.6	5
1.5KE18A	1.5KE18CA	15.30	17.10	18.90	1	25.2	60.3	5
1.5KE20A	1.5KE20CA	17.10	19.00	21.00	1	27.7	54.9	5
1.5KE22A	1.5KE22CA	18.80	20.90	23.10	1	30.6	49.7	5
1.5KE24A	1.5KE24CA	20.50	22.80	25.20	1	33.2	45.8	5
1.5KE27A	1.5KE27CA	23.10	25.70	28.40	1	37.5	40.5	5
1.5KE30A	1.5KE30CA	25.60	28.50	31.50	1	41.4	36.7	5
1.5KE33A	1.5KE33CA	28.20	31.40	34.70	1	45.7	33.3	5
1.5KE36A	1.5KE36CA	30.80	34.20	37.80	1	49.9	30.5	5
1.5KE39A	1.5KE39CA	33.30	37.10	41.00	1	53.9	28.2	5
1.5KE43A	1.5KE43CA	36.80	40.90	45.20	1	59.3	25.6	5
1.5KE47A	1.5KE47CA	40.20	44.70	49.40	1	64.8	23.5	5
1.5KE51A	1.5KE51CA	43.60	48.50	53.60	1	70.1	21.7	5
1.5KE56A	1.5KE56CA	47.80	53.20	58.80	1	77.0	19.7	5
1.5KE62A	1.5KE62CA	53.00	58.90	65.10	1	85.0	17.9	5
1.5KE68A	1.5KE68CA	58.10	64.60	71.40	1	92.0	16.5	5
1.5KE75A	1.5KE75CA	64.10	71.30	78.80	1	103.0	14.8	5
1.5KE82A	1.5KE82CA	70.10	77.90	86.10	1	113.0	13.5	5
1.5KE91A	1.5KE91CA	77.80	86.50	95.50	1	125.0	12.2	5
1.5KE100A	1.5KE100CA	85.50	95.00	105.00	1	137.0	11.1	5
1.5KE110A	1.5KE110CA	94.00	105.00	116.00	1	152.0	10.0	5
1.5KE120A	1.5KE120CA	102.00	114.00	126.00	1	165.0	9.2	5
1.5KE130A	1.5KE130CA	111.00	124.00	137.00	1	179.0	8.5	5
1.5KE150A	1.5KE150CA	128.00	143.00	158.00	1	207.0	7.3	5
1.5KE160A	1.5KE160CA	136.00	152.00	168.00	1	219.0	6.9	5
1.5KE170A	1.5KE170CA	145.00	162.00	179.00	1	234.0	6.5	5
1.5KE180A	1.5KE180CA	154.00	171.00	189.00	1	246.0	6.2	5
1.5KE200A	1.5KE200CA	171.00	190.00	210.00	1	274.0	5.5	5
1.5KE220A	1.5KE220CA	185.00	209.00	231.00	1	328.0	4.6	5
1.5KE250A	1.5KE250CA	214.00	237.00	263.00	1	344.0	4.4	5
1.5KE300A	1.5KE300CA	256.00	285.00	315.00	1	414.0	3.7	5
1.5KE350A	1.5KE350CA	300.00	332.00	368.00	1	482.0	3.2	5
1.5KE400A	1.5KE400CA	342.00	380.00	420.00	1	548.0	2.8	5
1.5KE440A	1.5KE440CA	376.00	418.00	462.00	1	602.0	2.5	5
1.5KE480A	1.5KE480CA	408.00	456.00	504.00	1	658.0	2.3	5
1.5KE510A	1.5KE510CA	434.00	485.00	535.00	1	698.0	2.1	5
1.5KE530A	1.5KE530CA	450.00	503.50	556.50	1	725.0	2.1	5
1.5KE540A	1.5KE540CA	459.00	513.00	567.00	1	740.0	2.0	5
1.5KE550A	1.5KE550CA	467.00	522.50	577.50	1	760.0	2.0	5

Forward Voltage (VF)@100 amps peak,8.3 msec sine wave equal to 3.5 volts max. (unidirectional only).  
 For bidirectional type having  $V_{RWM}$  of 10 volts and less, the  $I_R$  limit is double.  
 For parts without A , the VBR is  $\pm 10\%$   
 For bi-directional part number use C or CA Suffix for types 1.5KE6.8 thru types 1.5KE550 (e.g. 1.5KE6.8C ,1.5KE550CA)

**Curve Characteristics**

Fig. 1 - Peak Pulse Power Rating Curve



Fig. 2 - Typical Junction Capacitance



Fig. 3 - Pulse Waveform



Fig. 4 - Pulse Derating Curve



## Ordering Information

Device	Packing
(Part Number)-TP	Tape&Reel: 1.2Kpcs/Reel
(Part Number)-AP	Ammo Packing: 1.2Kpcs/Ammo Box
(Part Number)-BP	Bulk: 12Kpcs/Carton

Note : Adding "-HF" Suffix For Halogen Free, eg. Part Number-TP-HF

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### Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: [info@moschip.ru](mailto:info@moschip.ru)

Skype отдела продаж:

moschip.ru

moschip.ru\_4

moschip.ru\_6

moschip.ru\_9