

### 3000W Transient Voltage Suppressors

TVS Diodes - 3000W > SMDJ-3 Series

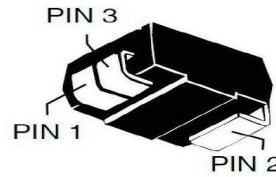


#### Description

The SMDJ-3 series is designed specifically to protect sensitive electronic equipment from voltage transients induced by lightning and other transient voltage events.

#### Features

- For surface mounted applications in order to optimize board space
- Reliable low cost construction utilizing molded plastic technique
- Plastic material has UL flammability classification 94V-0
- Typical IR less than 1uA above 10V
- Fast response time: typically less than 1.0ps from 0 Volts to VBR min
- Glass passivated junction
- Low inductance



Package: DO-214AB/ SMC-3

#### 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 10x1000µs waveform (Fig.1)(Note 1), (Note 2)	PPPM	3000	Watts
Peak pulse current of at 10/1000µs waveform (Note 1, Fig.3)	I <sub>PPM</sub>	See Table	Amps
Steady state power dissipation at TA=50°C (Fig.5)	P <sub>M(AV)</sub>	6.5	Watts
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load, (JEDEC Method) (Note3, Fig.6)	I <sub>FSM</sub>	3 00	Amps
Operating Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to 150	°C
Typical Thermal Resistance Junction to Lead	R <sub>θJL</sub>	15	°C/W
Typical Thermal Resistance Junction to Ambient	R <sub>θJA</sub>	75	°C/W

#### Notes:

1. Non-repetitive current pulse, per Fig.3 and derated above TA=25°C per Fig. 2.
2. Mounted on 8.0x8.0mm copper pad to each terminal.
3. 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		Test Current	Maximum Clamping Voltage@IPP	Peak Pulse Current	Reverse Leakage@VRWM	Delivery Time
Uni-Polar	Bi-polar	VRWM(V)	Min	Max	IT(mA)	VC(V)	IPP(A)	IR(μA)	days
SMDJ5.0A-3	SMDJ5.0CA-3	5.0	6.40	7.00	10	9.2	326.1	800	7days
SMDJ6.0A-3	SMDJ6.0CA-3	6.0	6.67	7.37	10	10.3	291.3	800	7days
SMDJ6.5A-3	SMDJ6.5CA-3	6.5	7.22	7.98	10	11.2	267.9	500	7days
SMDJ7.0A-3	SMDJ7.0CA-3	7.0	7.78	8.60	10	12.0	250.0	200	7days
SMDJ7.5A-3	SMDJ7.5CA-3	7.5	8.33	9.21	1	12.9	232.6	100	7days
SMDJ8.0A-3	SMDJ8.0CA-3	8.0	8.89	9.83	1	13.6	220.6	50	7days
SMDJ8.5A-3	SMDJ8.5CA-3	8.5	9.44	10.40	1	14.4	208.3	20	7days
SMDJ9.0A-3	SMDJ9.0CA-3	9.0	10.0	11.10	1	15.4	194.8	10	7days
SMDJ10A-3	SMDJ10CA-3	10.0	11.1	12.3	1	17.0	176.5	5	7days
SMDJ11A-3	SMDJ11CA-3	11.0	12.2	13.5	1	18.2	164.8	2	7days
SMDJ12A-3	SMDJ12CA-3	12.0	13.3	14.7	1	19.9	150.8	2	7days
SMDJ13A-3	SMDJ13CA-3	13.0	14.4	15.9	1	21.5	139.5	2	7days
SMDJ14A-3	SMDJ14CA-3	14.0	15.6	17.2	1	23.2	129.3	2	7days
SMDJ15A-3	SMDJ15CA-3	15.0	16.7	18.5	1	24.4	123.0	2	7days
SMDJ16A-3	SMDJ16CA-3	16.0	17.8	19.7	1	26.0	115.4	2	7days
SMDJ17A-3	SMDJ17CA-3	17.0	18.9	20.9	1	27.6	108.7	2	7days
SMDJ18A-3	SMDJ18CA-3	18.0	20.0	22.1	1	29.2	102.7	2	7days
SMDJ20A-3	SMDJ20CA-3	20.0	22.2	24.5	1	32.4	92.6	2	7days
SMDJ22A-3	SMDJ22CA-3	22.0	24.4	26.9	1	35.5	84.5	2	7days
SMDJ24A-3	SMDJ24CA-3	24.0	26.7	29.5	1	38.9	77.1	2	7days
SMDJ26A-3	SMDJ26CA-3	26.0	28.9	31.9	1	42.1	71.3	2	7days
SMDJ28A-3	SMDJ28CA-3	28.0	31.1	34.4	1	45.4	66.1	2	7days
SMDJ30A-3	SMDJ30CA-3	30.0	33.3	36.8	1	48.4	62.0	2	7days
SMDJ33A-3	SMDJ33CA-3	33.0	36.7	40.6	1	53.3	56.3	2	7days

**Electrical Characteristics (TA=25°C)**

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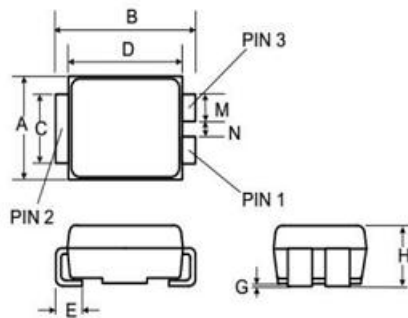
Part Number		Reverse Stand-Off Voltage	Breakdown Voltage		Test Current	Maximum Clamping Voltage@I <sub>PP</sub>	Peak Pulse Current	Reverse Leakage @V <sub>RWM</sub>	Delivery Time
Uni-Polar	Bi-polar	V <sub>RWM</sub> (V)	Min	Max	I <sub>T</sub> (mA)	V <sub>C</sub> (V)	I <sub>PP</sub> (A)	I <sub>R</sub> (μA)	days
SMDJ36A-3	SMDJ36CA-3	36.0	40.0	44.2	1	58.1	51.6	2	7days
SMDJ40A-3	SMDJ40CA-3	40.0	44.4	49.1	1	64.5	46.5	2	7days
SMDJ43A-3	SMDJ43CA-3	43.0	47.8	52.8	1	69.4	43.2	2	7days
SMDJ45A-3	SMDJ45CA-3	45.0	50.0	55.3	1	72.7	41.3	2	7days
SMDJ48A-3	SMDJ48CA-3	48.0	53.3	58.9	1	77.4	38.8	2	7days
SMDJ51A-3	SMDJ51CA-3	51.0	56.7	62.7	1	82.4	36.4	2	7days
SMDJ54A-3	SMDJ54CA-3	54.0	60.0	66.3	1	87.1	34.4	2	7days
SMDJ58A-3	SMDJ58CA-3	58.0	64.4	71.2	1	93.6	32.1	2	7days
SMDJ60A-3	SMDJ60CA-3	60.0	66.7	73.7	1	96.8	31.0	2	7days
SMDJ64A-3	SMDJ64CA-3	64.0	71.1	78.6	1	103.0	29.1	2	7days
SMDJ70A-3	SMDJ70CA-3	70.0	77.8	86.0	1	113.0	26.5	2	7days
SMDJ75A-3	SMDJ75CA-3	75.0	83.3	92.1	1	121.0	24.8	2	7days

Notes: For bidirectional type having V<sub>RWM</sub> of 10 volts and less, the I<sub>R</sub> limit is double

**Packing Options**

Package Type	Description	Packing Quantity	Industry Standard
DO-214AB	Embossed Carrier Reel Pack	3000PCS	EIA-481-1

**Dimensions - DO-214AB / SMC-3**



Ref.(mm)	Millimeters	
A	5.59	6.22
B	7.75	8.13
C	2.90	3.20
D	6.60	7.11
E	0.76	1.52
G	-	0.203
H	2.06	2.62
M	0.8	1.3
N	0.6	1.0