

600W Surface Mount Transient Voltage Supressors

RoHS SMBJ Series

R.

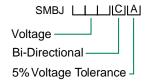
FEATURES

- RoHS compliant
- Voltage ratings from 5 to 440 volts
- For surface mounted applications in order to optimize board space
- · Low profile package
- · Built-in strain relief
- Glass passivated junction
- · Low lead inductance
- Excellent clamping capability
- Repetition Rate (duty cycle): 0.01%
- Fast response time: typically less than 1.0ps from 0 Volts to BV for unidirectional types
- Typical IR less than 1 µA above 10V
- High Temperature soldering: 250°C/10 seconds at terminals

Agency Approvals: Recognized under the Components Program of Underwriters Laboratories.

Agency File Number: E128662

ORDERING INFORMATION



Tape and reeled (3000 pcs)



MAXIMUM RATINGS AND CHARACTERISTICS @25°C AMBIENT TEMPERATURE (unless otherwise noted)

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PARAMETER	SYMBOL	VALUE	UNIT
Peak pulse power Dissipation on 10/1000µs waveform (note 1,2, FIG.1)	P _{PPM}	Min 600	Watts
Peak pulse current of on 10\1000µs waveform (note 1, FIG.3)	I _{PPM}	SEE TABLE 1	Amps
Peak forward Surge Current, 8.3ms Single Half SIne Wave Superimposed on Rated Load, (JEDEC Method) (note 2.3)	I _{PSM}	100	Amps
Operating junction and Storage Temperature Range	T _j , T _{sTG}	-55 to +150	°C

Note 1. Non-repetitive current pulse, per Fig.3 and derated above T_A = 25°C per Fig.2

Note 2. Mounted on $5.0 \mathrm{mm}^2 (0.03 \mathrm{mm} \ \mathrm{thick})$ Copper Pads to each terminal

Note 3. 8.3 ms single half sine-wave, or equivalent square wave, Duty cycle= 4 pulses per minute

Mechanical Specifications:

Weight: 0.003ounce, 0.093 gram

Case: JEDEC DO-214AA Molded Plastic over

glass passivated junction

Mounting Position: Any

Polarity: Color band denotes cathode except

Bidirectional

Terminal: Solder Plated solderable per

MIL-STD-750, Method 2026

Standard Packaging: 12mm tape (EIA STF RS-481)



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ROHS SMBJ Series

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ELECTRICAL SPECIFICATION @ Tamb 25°C

SMBJ6.0A SM SMBJ6.5A SM SMBJ6.5A SM SMBJ7.0A SM SMBJ7.5A SM SMBJ8.0A SM SMBJ8.5A SM SMBJ9.0A SM SMBJ10A SM SMBJ11A SM SMBJ12A SM SMBJ12A SM SMBJ13A SM SMBJ15A SM SMBJ16A SM SMBJ16A SM SMBJ17A SM SMBJ18A SM SMBJ20A SM SMBJ2A SM SMBJ2A SM SMBJ2A SM SMBJ3A SM SMBJ3A SM SMBJ3A SM SMBJ4A SM SMBJ4A SM SMBJ4A SM SMBJ5A SM SMBJ5A SM SMBJ6A SM SMBJ7A SM	MBJ5.0CA MBJ6.0CA MBJ6.5CA MBJ7.0CA MBJ7.5CA MBJ8.0CA MBJ8.5CA MBJ9.0CA MBJ10CA MBJ11CA MBJ12CA MBJ13CA MBJ15CA MBJ15CA MBJ15CA MBJ16CA MBJ17CA MBJ17CA MBJ17CA	UNI KE KG KK KM KP KR KT KV KX LE LG LK LM LP	BI AE AG AK AM AP AR AT AV AX AZ BE BG	VR (Volts) 5.0 6.0 6.5 7.0 7.5 8.0 8.5 9.0 10.0 11.0	MIN 6.40 6.67 7.22 7.78 8.33 8.89 9.44 10.00	7.00 7.37 7.98 8.60 9.21 9.83	10 10 10 10	Vc @ IPP (Volts) 9.2 10.3 11.2 12.0	65.3 58.3 53.6 50.0	(μ A) 800 800 500
SMBJ6.0A SM SMBJ6.5A SM SMBJ6.5A SM SMBJ7.0A SM SMBJ7.5A SM SMBJ8.0A SM SMBJ8.5A SM SMBJ10A SM SMBJ10A SM SMBJ11A SM SMBJ12A SM SMBJ13A SM SMBJ14A SM SMBJ15A SM SMBJ16A SM SMBJ17A SM SMBJ16A SM SMBJ20A SM SMBJ2A SM SMBJ2A SM SMBJ2A SM SMBJ3A SM SMBJ3A SM SMBJ3A SM SMBJ4A SM SMBJ4A SM SMBJ4A SM SMBJ5A SM SMBJ5A SM SMBJ5A SM SMBJ6A SM SMBJ7A SM	MBJ6.0CA MBJ6.5CA MBJ7.0CA MBJ7.5CA MBJ7.5CA MBJ8.0CA MBJ8.5CA MBJ9.0CA MBJ10CA MBJ11CA MBJ11CA MBJ11CA MBJ11CA MBJ13CA MBJ13CA MBJ15CA MBJ15CA MBJ15CA MBJ15CA MBJ16CA MBJ16CA	KG KK KM KP KR KT KV KX KZ LE LG LK	AG AK AM AP AR AT AV AX AZ BE	6.0 6.5 7.0 7.5 8.0 8.5 9.0	6.67 7.22 7.78 8.33 8.89 9.44	7.00 7.37 7.98 8.60 9.21 9.83	10 10 10	10.3 11.2 12.0	58.3 53.6	800
SMBJ6.0A SM SMBJ6.5A SM SMBJ6.5A SM SMBJ7.0A SM SMBJ7.5A SM SMBJ8.0A SM SMBJ8.5A SM SMBJ9.0A SM SMBJ10A SM SMBJ11A SM SMBJ12A SM SMBJ13A SM SMBJ14A SM SMBJ15A SM SMBJ16A SM SMBJ17A SM SMBJ18A SM SMBJ20A SM SMBJ24A SM SMBJ26A SM SMBJ30A SM SMBJ33A SM SMBJ36A SM SMBJ40A SM SMBJ43A SM SMBJ45A SM SMBJ51A SM SMBJ54A SM SMBJ54A SM SMBJ54A SM SMBJ75A SM SMBJ75A SM <td>MBJ6.0CA MBJ6.5CA MBJ7.0CA MBJ7.5CA MBJ7.5CA MBJ8.0CA MBJ8.5CA MBJ9.0CA MBJ10CA MBJ11CA MBJ11CA MBJ11CA MBJ11CA MBJ13CA MBJ13CA MBJ15CA MBJ15CA MBJ15CA MBJ15CA MBJ16CA MBJ16CA</td> <td>KG KK KM KP KR KT KV KX KZ LE LG LK</td> <td>AG AK AM AP AR AT AV AX AZ BE</td> <td>6.0 6.5 7.0 7.5 8.0 8.5 9.0</td> <td>7.22 7.78 8.33 8.89 9.44</td> <td>7.98 8.60 9.21 9.83</td> <td>10 10</td> <td>10.3 11.2 12.0</td> <td>58.3 53.6</td> <td></td>	MBJ6.0CA MBJ6.5CA MBJ7.0CA MBJ7.5CA MBJ7.5CA MBJ8.0CA MBJ8.5CA MBJ9.0CA MBJ10CA MBJ11CA MBJ11CA MBJ11CA MBJ11CA MBJ13CA MBJ13CA MBJ15CA MBJ15CA MBJ15CA MBJ15CA MBJ16CA MBJ16CA	KG KK KM KP KR KT KV KX KZ LE LG LK	AG AK AM AP AR AT AV AX AZ BE	6.0 6.5 7.0 7.5 8.0 8.5 9.0	7.22 7.78 8.33 8.89 9.44	7.98 8.60 9.21 9.83	10 10	10.3 11.2 12.0	58.3 53.6	
SMBJ7.0A SM SMBJ7.5A SM SMBJ8.0A SM SMBJ8.5A SM SMBJ8.5A SM SMBJ10A SM SMBJ11A SM SMBJ12A SM SMBJ13A SM SMBJ13A SM SMBJ14A SM SMBJ15A SM SMBJ16A SM SMBJ17A SM SMBJ18A SM SMBJ20A SM SMBJ20A SM SMBJ2A SM SMBJ2A SM SMBJ2BA SM SMBJ3A SM SMBJ3A SM SMBJ3A SM SMBJ4A SM SMBJ4A SM SMBJ4A SM SMBJ5A SM SMBJ5A SM SMBJ6A SM SMBJ7A SM SMBJ7A SM SMBJ7A SM <	MBJ7.0CA MBJ7.5CA MBJ7.5CA MBJ8.0CA MBJ8.5CA MBJ9.0CA MBJ10CA MBJ11CA MBJ11CA MBJ12CA MBJ13CA MBJ13CA MBJ15CA MBJ15CA MBJ15CA MBJ15CA MBJ15CA	KM KP KR KT KV KX KZ LE LG LK	AM AP AR AT AV AX AZ BE	7.0 7.5 8.0 8.5 9.0	7.78 8.33 8.89 9.44	8.60 9.21 9.83	10	12.0	_	500
SMBJ7.0A SM SMBJ7.5A SM SMBJ8.0A SM SMBJ8.5A SM SMBJ9.0A SM SMBJ10A SM SMBJ11A SM SMBJ12A SM SMBJ13A SM SMBJ13A SM SMBJ14A SM SMBJ15A SM SMBJ16A SM SMBJ17A SM SMBJ18A SM SMBJ20A SM SMBJ20A SM SMBJ2A SM SMBJ2A SM SMBJ2A SM SMBJ3A SM SMBJ3A SM SMBJ3A SM SMBJ4A SM SMBJ4A SM SMBJ4A SM SMBJ5A SM SMBJ5A SM SMBJ6A SM SMBJ7A SM SMBJ7A SM SMBJ7A SM <t< td=""><td>MBJ7.0CA MBJ7.5CA MBJ7.5CA MBJ8.0CA MBJ8.5CA MBJ9.0CA MBJ10CA MBJ11CA MBJ11CA MBJ12CA MBJ13CA MBJ13CA MBJ15CA MBJ15CA MBJ15CA MBJ15CA MBJ15CA</td><td>KP KR KT KV KX KZ LE LG LK LM</td><td>AP AR AT AV AX AZ BE</td><td>7.5 8.0 8.5 9.0 10.0</td><td>8.33 8.89 9.44</td><td>9.21 9.83</td><td></td><td></td><td>50.0</td><td></td></t<>	MBJ7.0CA MBJ7.5CA MBJ7.5CA MBJ8.0CA MBJ8.5CA MBJ9.0CA MBJ10CA MBJ11CA MBJ11CA MBJ12CA MBJ13CA MBJ13CA MBJ15CA MBJ15CA MBJ15CA MBJ15CA MBJ15CA	KP KR KT KV KX KZ LE LG LK LM	AP AR AT AV AX AZ BE	7.5 8.0 8.5 9.0 10.0	8.33 8.89 9.44	9.21 9.83			50.0	
SMBJ8.0A SM SMBJ8.5A SM SMBJ9.0A SM SMBJ9.0A SM SMBJ10A SM SMBJ11A SM SMBJ13A SM SMBJ13A SM SMBJ14A SM SMBJ15A SM SMBJ16A SM SMBJ17A SM SMBJ18A SM SMBJ20A SM SMBJ24A SM SMBJ24A SM SMBJ24A SM SMBJ30A SM SMBJ33A SM SMBJ36A SM SMBJ36A SM SMBJ40A SM SMBJ45A SM SMBJ51A SM SMBJ54A SM SMBJ54A SM SMBJ60A SM SMBJ75A SM SMBJ78A SM SMBJ78A SM SMBJ90A SM SMBJ100A SM	MBJ8.0CA MBJ8.5CA MBJ9.0CA MBJ10CA MBJ11CA MBJ12CA MBJ13CA MBJ14CA MBJ15CA MBJ15CA MBJ16CA MBJ17CA MBJ17CA	KR KT KV KX KZ LE LG LK LM	AR AT AV AX AZ BE	8.0 8.5 9.0 10.0	8.89 9.44	9.83	1	10.0		200
SMBJ8.5A SM SMBJ9.0A SM SMBJ10A SM SMBJ11A SM SMBJ12A SM SMBJ13A SM SMBJ14A SM SMBJ15A SM SMBJ16A SM SMBJ16A SM SMBJ16A SM SMBJ16A SM SMBJ20A SM SMBJ2A SM SMBJ2A SM SMBJ2A SM SMBJ3A SM SMBJ3AA SM SMBJ3AA SM SMBJ4AA SM SMBJ4BA SM SMBJ4BA SM SMBJ5AA SM SMBJ5AA SM SMBJ6AA SM SMBJ7AA SM SMBJ7AA SM SMBJ7BA SM SMBJ7BA SM SMBJ7BA SM SMBJ7BA SM SMBJ9OA SM <td>MBJ8.5CA MBJ9.0CA MBJ10CA MBJ11CA MBJ12CA MBJ13CA MBJ14CA MBJ15CA MBJ15CA MBJ16CA MBJ17CA MBJ18CA</td> <td>KT KV KX KZ LE LG LK</td> <td>AT AV AX AZ BE</td> <td>8.5 9.0 10.0</td> <td>9.44</td> <td></td> <td></td> <td>12.9</td> <td>46.6</td> <td>100</td>	MBJ8.5CA MBJ9.0CA MBJ10CA MBJ11CA MBJ12CA MBJ13CA MBJ14CA MBJ15CA MBJ15CA MBJ16CA MBJ17CA MBJ18CA	KT KV KX KZ LE LG LK	AT AV AX AZ BE	8.5 9.0 10.0	9.44			12.9	46.6	100
SMBJ9.0A SM SMBJ10A SM SMBJ11A SM SMBJ12A SM SMBJ13A SM SMBJ14A SM SMBJ15A SM SMBJ16A SM SMBJ17A SM SMBJ17A SM SMBJ17A SM SMBJ20A SM SMBJ24A SM SMBJ24A SM SMBJ26A SM SMBJ30A SM SMBJ33A SM SMBJ36A SM SMBJ40A SM SMBJ43A SM SMBJ45A SM SMBJ51A SM SMBJ58A SM SMBJ60A SM SMBJ70A SM SMBJ78A SM SMBJ78A SM SMBJ78A SM SMBJ100A SM SMBJ100A SM SMBJ10A SM	MBJ9.0CA MBJ10CA MBJ11CA MBJ12CA MBJ13CA MBJ14CA MBJ15CA MBJ16CA MBJ17CA MBJ18CA	KV KX KZ LE LG LK LM	AV AX AZ BE	9.0 10.0			1	13.6	44.2	50
SMBJ10A SM SMBJ11A SM SMBJ12A SM SMBJ13A SM SMBJ14A SM SMBJ16A SM SMBJ16A SM SMBJ16A SM SMBJ17A SM SMBJ18A SM SMBJ20A SM SMBJ24A SM SMBJ24A SM SMBJ26A SM SMBJ30A SM SMBJ33A SM SMBJ36A SM SMBJ40A SM SMBJ43A SM SMBJ45A SM SMBJ51A SM SMBJ58A SM SMBJ60A SM SMBJ70A SM SMBJ78A SM SMBJ78A SM SMBJ78A SM SMBJ100A SM SMBJ100A SM SMBJ100A SM SMBJ100A SM	MBJ10CA MBJ11CA MBJ12CA MBJ13CA MBJ14CA MBJ15CA MBJ15CA MBJ16CA MBJ17CA MBJ18CA	KX KZ LE LG LK LM	AX AZ BE	10.0	10.00	10.40	1	14.4	41.7	20
SMBJ11A SM SMBJ12A SM SMBJ13A SM SMBJ14A SM SMBJ15A SM SMBJ16A SM SMBJ17A SM SMBJ18A SM SMBJ20A SM SMBJ22A SM SMBJ24A SM SMBJ26A SM SMBJ28A SM SMBJ30A SM SMBJ36A SM SMBJ36A SM SMBJ40A SM SMBJ45A SM SMBJ45A SM SMBJ51A SM SMBJ58A SM SMBJ60A SM SMBJ70A SM SMBJ70A SM SMBJ78A SM SMBJ85A SM SMBJ85A SM SMBJ90A SM SMBJ100A SM SMBJ100A SM SMBJ100A SM	MBJ11CA MBJ12CA MBJ13CA MBJ14CA MBJ15CA MBJ16CA MBJ17CA MBJ17CA MBJ18CA	KZ LE LG LK LM	AZ BE			11.10	1	15.4	39.0	10
SMBJ12A SM SMBJ13A SM SMBJ14A SM SMBJ15A SM SMBJ16A SM SMBJ16A SM SMBJ17A SM SMBJ18A SM SMBJ2OA SM SMBJ22A SM SMBJ24A SM SMBJ26A SM SMBJ28A SM SMBJ30A SM SMBJ36A SM SMBJ36A SM SMBJ40A SM SMBJ45A SM SMBJ45A SM SMBJ48A SM SMBJ51A SM SMBJ58A SM SMBJ60A SM SMBJ70A SM SMBJ70A SM SMBJ75A SM SMBJ85A SM SMBJ90A SM SMBJ100A SM SMBJ110A SM	MBJ12CA MBJ13CA MBJ14CA MBJ15CA MBJ16CA MBJ17CA MBJ17CA MBJ18CA	LE LG LK LM	BE	11.0	11.10	12.30	1	17.0	35.3	5
SMBJ13A SM SMBJ14A SM SMBJ15A SM SMBJ16A SM SMBJ16A SM SMBJ17A SM SMBJ18A SM SMBJ20A SM SMBJ22A SM SMBJ24A SM SMBJ26A SM SMBJ28A SM SMBJ30A SM SMBJ36A SM SMBJ36A SM SMBJ40A SM SMBJ45A SM SMBJ45A SM SMBJ51A SM SMBJ58A SM SMBJ60A SM SMBJ64A SM SMBJ75A SM SMBJ75A SM SMBJ78A SM SMBJ78A SM SMBJ85A SM SMBJ100A SM SMBJ100A SM SMBJ110A SM	MBJ13CA MBJ14CA MBJ15CA MBJ16CA MBJ17CA MBJ18CA	LG LK LM			12.20	13.50	1	18.2	33.0	5
SMBJ14A SM SMBJ15A SM SMBJ16A SM SMBJ17A SM SMBJ17A SM SMBJ18A SM SMBJ20A SM SMBJ22A SM SMBJ24A SM SMBJ26A SM SMBJ28A SM SMBJ30A SM SMBJ33A SM SMBJ36A SM SMBJ40A SM SMBJ45A SM SMBJ45A SM SMBJ51A SM SMBJ58A SM SMBJ60A SM SMBJ60A SM SMBJ75A SM SMBJ75A SM SMBJ75A SM SMBJ78A SM SMBJ90A SM SMBJ100A SM SMBJ10A SM SMBJ10A SM	MBJ14CA MBJ15CA MBJ16CA MBJ17CA MBJ18CA	LK LM	BG	12.0	13.30	14.70	1	19.9	30.2	5
SMBJ15A SM SMBJ16A SM SMBJ17A SM SMBJ18A SM SMBJ20A SM SMBJ22A SM SMBJ24A SM SMBJ26A SM SMBJ30A SM SMBJ30A SM SMBJ30A SM SMBJ30A SM SMBJ3A SM SMBJ4A SM SMBJ4A SM SMBJ4A SM SMBJ5A SM SMBJ5BA SM SMBJ6A SM SMBJ6A SM SMBJ6A SM SMBJ6A SM SMBJ7A SM SMBJ75A SM SMBJ7BA SM SMBJ7BA SM SMBJ9OA SM SMBJ100A SM SMBJ110A SM	MBJ15CA MBJ16CA MBJ17CA MBJ18CA	LM		13.0	14.40	15.90	1	21.5	28.0	5
SMBJ16A SM SMBJ17A SM SMBJ18A SM SMBJ20A SM SMBJ22A SM SMBJ24A SM SMBJ26A SM SMBJ30A SM SMBJ30A SM SMBJ33A SM SMBJ46A SM SMBJ45A SM SMBJ45A SM SMBJ45A SM SMBJ51A SM SMBJ54A SM SMBJ60A SM SMBJ60A SM SMBJ75A SM SMBJ75A SM SMBJ75A SM SMBJ85A SM SMBJ90A SM SMBJ100A SM SMBJ10A SM SMBJ10A SM	MBJ16CA MBJ17CA MBJ18CA		BK	14.0	15.60	17.20	1	23.2	25.9	5
SMBJ17A SM SMBJ18A SM SMBJ20A SM SMBJ22A SM SMBJ24A SM SMBJ26A SM SMBJ30A SM SMBJ33A SM SMBJ33A SM SMBJ46A SM SMBJ45A SM SMBJ45A SM SMBJ51A SM SMBJ54A SM SMBJ60A SM SMBJ64A SM SMBJ75A SM SMBJ75A SM SMBJ78A SM SMBJ78A SM SMBJ90A SM SMBJ100A SM SMBJ110A SM	MBJ17CA MBJ18CA	LP	BM	15.0	16.70	18.50	1	24.4	24.6	5
SMBJ18A SM SMBJ20A SM SMBJ22A SM SMBJ24A SM SMBJ26A SM SMBJ28A SM SMBJ30A SM SMBJ33A SM SMBJ36A SM SMBJ40A SM SMBJ45A SM SMBJ45A SM SMBJ51A SM SMBJ54A SM SMBJ60A SM SMBJ64A SM SMBJ75A SM SMBJ75A SM SMBJ78A SM SMBJ78A SM SMBJ90A SM SMBJ100A SM SMBJ110A SM	MBJ18CA		BP	16.0	17.80	19.70	1	26.0	23.1	5
SMBJ20A SM SMBJ22A SM SMBJ24A SM SMBJ26A SM SMBJ28A SM SMBJ30A SM SMBJ33A SM SMBJ36A SM SMBJ40A SM SMBJ45A SM SMBJ45A SM SMBJ51A SM SMBJ54A SM SMBJ58A SM SMBJ60A SM SMBJ70A SM SMBJ78A SM SMBJ78A SM SMBJ78A SM SMBJ90A SM SMBJ100A SM SMBJ110A SM		LR	BR	17.0	18.90	20.90	1	27.6	21.8	5
SMBJ22A SM SMBJ24A SM SMBJ26A SM SMBJ28A SM SMBJ30A SM SMBJ33A SM SMBJ36A SM SMBJ40A SM SMBJ45A SM SMBJ45A SM SMBJ45A SM SMBJ51A SM SMBJ54A SM SMBJ54A SM SMBJ60A SM SMBJ70A SM SMBJ75A SM SMBJ78A SM SMBJ78A SM SMBJ85A SM SMBJ90A SM SMBJ100A SM SMBJ110A SM	MR I20CA	LT	BT	18.0	20.00	22.10	1	29.2	20.6	5
SMBJ24A SM SMBJ26A SM SMBJ28A SM SMBJ30A SM SMBJ36A SM SMBJ36A SM SMBJ40A SM SMBJ43A SM SMBJ45A SM SMBJ45A SM SMBJ51A SM SMBJ54A SM SMBJ60A SM SMBJ60A SM SMBJ70A SM SMBJ78A SM SMBJ78A SM SMBJ85A SM SMBJ78A SM SMBJ90A SM SMBJ100A SM SMBJ110A SM SMBJ120A SM	IVIDJZUCA	LV	BV	20.0	22.20	24.50	1	32.4	18.6	5
SMBJ26A SM SMBJ28A SM SMBJ30A SM SMBJ33A SM SMBJ36A SM SMBJ40A SM SMBJ45A SM SMBJ45A SM SMBJ51A SM SMBJ54A SM SMBJ58A SM SMBJ60A SM SMBJ64A SM SMBJ70A SM SMBJ78A SM SMBJ78A SM SMBJ85A SM SMBJ90A SM SMBJ100A SM SMBJ110A SM	MBJ22CA	LX	BX	22.0	24.40	26.90	1	35.5	16.9	5
SMBJ28A SM SMBJ30A SM SMBJ33A SM SMBJ36A SM SMBJ40A SM SMBJ43A SM SMBJ45A SM SMBJ45A SM SMBJ51A SM SMBJ54A SM SMBJ6A SM SMBJ6A SM SMBJ64A SM SMBJ70A SM SMBJ75A SM SMBJ78A SM SMBJ85A SM SMBJ90A SM SMBJ100A SM SMBJ110A SM SMBJ120A SM	MBJ24CA	LZ	BZ	24.0	26.70	29.50	1	38.9	15.5	5
SMBJ30A SM SMBJ33A SM SMBJ36A SM SMBJ40A SM SMBJ43A SM SMBJ45A SM SMBJ45A SM SMBJ51A SM SMBJ54A SM SMBJ58A SM SMBJ60A SM SMBJ64A SM SMBJ70A SM SMBJ75A SM SMBJ78A SM SMBJ85A SM SMBJ90A SM SMBJ100A SM SMBJ110A SM SMBJ120A SM	MBJ26CA	ME	CE	26.0	28.90	31.90	1	42.1	14.3	5
SMBJ33A SM SMBJ36A SM SMBJ40A SM SMBJ43A SM SMBJ45A SM SMBJ45A SM SMBJ51A SM SMBJ54A SM SMBJ58A SM SMBJ60A SM SMBJ64A SM SMBJ70A SM SMBJ75A SM SMBJ78A SM SMBJ85A SM SMBJ90A SM SMBJ100A SM SMBJ110A SM SMBJ120A SM	MBJ28CA	MG	CG	28.0	31.10	34.40	1	45.4	13.3	5
SMBJ36A SM SMBJ40A SM SMBJ43A SM SMBJ45A SM SMBJ45A SM SMBJ51A SM SMBJ54A SM SMBJ58A SM SMBJ60A SM SMBJ64A SM SMBJ70A SM SMBJ75A SM SMBJ75A SM SMBJ85A SM SMBJ90A SM SMBJ100A SM SMBJ110A SM SMBJ120A SM	MBJ30CA	MK	CK	30.0	33.30	36.80	1	48.4	12.4	5
SMBJ40A SM SMBJ43A SM SMBJ45A SM SMBJ48A SM SMBJ51A SM SMBJ54A SM SMBJ58A SM SMBJ60A SM SMBJ64A SM SMBJ70A SM SMBJ75A SM SMBJ75A SM SMBJ85A SM SMBJ90A SM SMBJ100A SM SMBJ110A SM SMBJ120A SM	MBJ33CA	MM	CM	33.0	36.70	40.60	1	53.3	11.3	5
SMBJ43A SM SMBJ45A SM SMBJ48A SM SMBJ51A SM SMBJ54A SM SMBJ58A SM SMBJ60A SM SMBJ64A SM SMBJ75A SM SMBJ75A SM SMBJ78A SM SMBJ85A SM SMBJ90A SM SMBJ100A SM SMBJ110A SM SMBJ120A SM	MBJ36CA	MP	CP	36.0	40.00	44.20	1	58.1	10.4	5
SMBJ45A SM SMBJ48A SM SMBJ51A SM SMBJ54A SM SMBJ58A SM SMBJ60A SM SMBJ64A SM SMBJ70A SM SMBJ75A SM SMBJ78A SM SMBJ85A SM SMBJ90A SM SMBJ100A SM SMBJ110A SM SMBJ120A SM	MBJ40CA	MR	CR	40.0	44.40	49.10	1	64.5	9.3	5
SMBJ48A SM SMBJ51A SM SMBJ54A SM SMBJ58A SM SMBJ60A SM SMBJ64A SM SMBJ70A SM SMBJ75A SM SMBJ78A SM SMBJ85A SM SMBJ90A SM SMBJ100A SM SMBJ110A SM SMBJ120A SM	MBJ43CA	MT	CT	43.0	47.80	52.80	1	69.4	8.7	5
SMBJ51A SM SMBJ54A SM SMBJ58A SM SMBJ60A SM SMBJ64A SM SMBJ70A SM SMBJ78A SM SMBJ78A SM SMBJ85A SM SMBJ90A SM SMBJ100A SM SMBJ110A SM SMBJ120A SM	MBJ45CA	MV	CV	45.0	50.00	55.30	1	72.7	8.3	5
SMBJ54A SM SMBJ58A SM SMBJ60A SM SMBJ64A SM SMBJ70A SM SMBJ75A SM SMBJ78A SM SMBJ85A SM SMBJ90A SM SMBJ110A SM SMBJ120A SM	MBJ48CA	MX	CX	48.0	53.30	58.90	1	77.4	7.8	5
SMBJ58A SM SMBJ60A SM SMBJ64A SM SMBJ70A SM SMBJ75A SM SMBJ78A SM SMBJ85A SM SMBJ90A SM SMBJ100A SM SMBJ110A SM SMBJ120A SM	MBJ51CA	MZ	CZ	51.0	56.70	62.70	1	82.4	7.3	5
SMBJ60A SM SMBJ64A SM SMBJ70A SM SMBJ75A SM SMBJ78A SM SMBJ85A SM SMBJ90A SM SMBJ100A SM SMBJ110A SM SMBJ120A SM	MBJ54CA	NE	DE	54.0	60.00	66.30	1	87.1	6.9	5
SMBJ64A SM SMBJ70A SM SMBJ75A SM SMBJ78A SM SMBJ85A SM SMBJ90A SM SMBJ100A SM SMBJ110A SM SMBJ120A SM	MBJ58CA	NG	DG	58.0	64.40	71.20	1	93.6	6.5	5
SMBJ70A SM SMBJ75A SM SMBJ78A SM SMBJ85A SM SMBJ90A SM SMBJ100A SM SMBJ110A SM SMBJ120A SM	MBJ60CA	NK	DK	60.0	66.70	73.70	1	96.8	6.2	5
SMBJ75A SM SMBJ78A SM SMBJ85A SM SMBJ90A SM SMBJ100A SM SMBJ110A SM SMBJ120A SM	MBJ64CA	NM	DM	64.0	71.10	78.60	1	103.0	5.9	5
SMBJ78A SM SMBJ85A SM SMBJ90A SM SMBJ100A SM SMBJ110A SM SMBJ120A SM	MBJ70CA	NP	DP	70.0	77.80	86.00	1	113.0	5.3	5
SMBJ85A SM SMBJ90A SM SMBJ100A SM SMBJ110A SM SMBJ120A SM	MBJ75CA	NR	DR	75.0	83.30	92.10	1	121.0	5.0	5
SMBJ90A SM SMBJ100A SM SMBJ110A SM SMBJ120A SM	MBJ78CA	NT	DT	78.0	86.70	95.80	1	126.0	4.8	5
SMBJ100A SM SMBJ110A SM SMBJ120A SM	MBJ85CA	NV	DV	85.0	94.40	104.00	1	137.0	4.4	5
SMBJ110A SM SMBJ120A SM	MBJ90CA	NX	DX	90.0	100.00	111.00	1	146.0	4.1	5
SMBJ120A SM	MBJ100CA	NZ	DZ	100.0	111.00	123.00	1	162.0	3.7	5
	MBJ110CA	PE	EE	110.0	122.00		1	177.0	3.4	5
SMBJ130A ■ SN	MBJ120CA	PG	EG	120.0	133.00		1	193.0	3.1	5
	MBJ130CA	PK	EK	130.0	144.00		1	209.0	2.9	5
	MBJ150CA	PM	EM	150.0	167.00		1	243.0	2.5	5
	MBJ160CA	PP	EP	160.0	178.00		1	259.0	2.3	5
	1 4D 14 7 0 0 1	PR	ER	170.0	189.00		1	275.0	2.2	5
	MBJ170CA	PT PV	ET EY	180.0	201.00		1	292.0	2.1	5
	MBJ180CA	PV	EV	200.0	224.00	247.00	1	324.0	1.9	5
	MBJ180CA MBJ200CA	PX	EX	220.0	246.00		1	356.0	1.7	5
	MBJ180CA MBJ200CA MBJ220CA	PZ	EZ	250.0	279.00		1	405.0	1.5	5
	MBJ180CA MBJ200CA MBJ220CA MBJ250CA	QE	FE	300.0	335.00	371.00	1	486.0	1.3	5
	MBJ180CA MBJ200CA MBJ220CA MBJ250CA MBJ300CA	QG	FG	350.0	391.00	432.00	1	567.0	1.1	5
SMBJ400A SM SMBJ440A SM	MBJ180CA MBJ200CA MBJ220CA MBJ250CA	QK	FK FM	400.0 440.0	447.00 492.00	494.00 543.00	1	648.0 713.0	0.9	5 5

For bidirectional type having Vrwm of 10 volts and less, the IR limit is double. For parts without A , the VBR is + 10%

600W Surface Mount Transient Voltage Supressors

RoHS SMBJ Series

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Ratings and Characteristic Curves TA=25°C unless otherwise noted

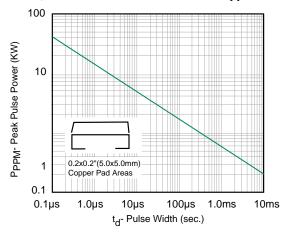


Fig. 1 Peak Pulse Power Rating

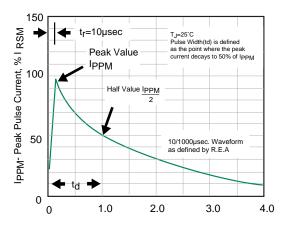


Fig. 3 Pulse Waveform

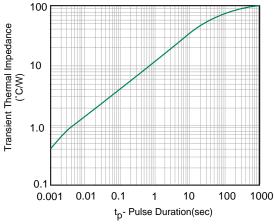


Fig. 5- Typ. Transient Thermal Impedance

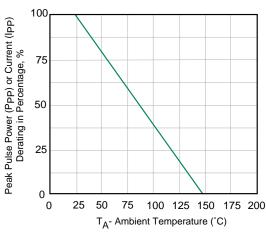


Fig. 2 Pulse Derating Curve

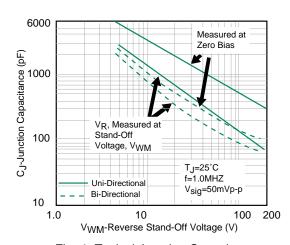


Fig. 4- Typical Junction Capacitance

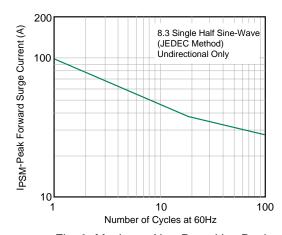


Fig. 6- Maximum Non-Repetitive Peak Forward Surge Current



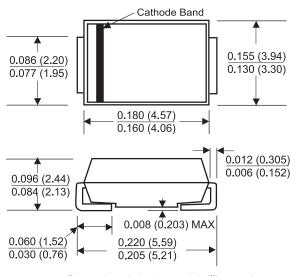
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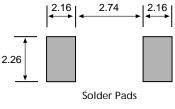
*I***R**_e

Package Outline Dimensions and Pad Layout

DO-214AA (SMB J-Bend)



Dimensions in inches and (millimeters)



All dimensions in mm