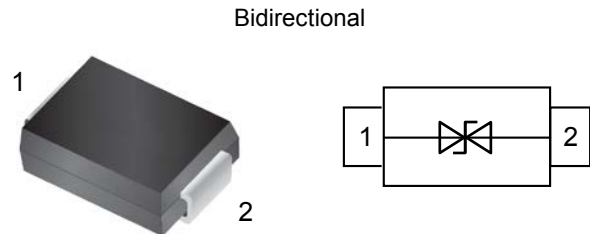


Power TVS in DO-214AB/SMC

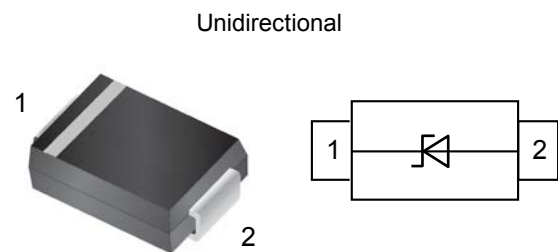
Features

- Glass passivated chip
- 5000W peak pulse power(10/1000us)
- High accuracy, 5% tolerance
- Uni and Bidirectional unit
- Low clamping voltage
- Low Leakage current
- Very fast response time



Mechanical Data

- **Case:** DO-214AB/SMC (plastic package).
RoHS compliant; Halogen free
- **Molding Compound Flammability Rating:**
UL 94 V-0
- **Terminals:** High temperature soldering guaranteed:
260 °C/10 sec. at terminals



Applications

- Computers
- Telecom system
- Industrial equipments
- Consumer electronic applications
- Other VCC bus and I/O interfaces

Absolute Maximum Ratings

Ratings at 25 °C, ambient temperature unless otherwise specified

Parameter	Symbol	Value	Unit
Peak pulse power dissipation with a 10/1000us waveform ⁽¹⁾	P _{PP}	5000	W
Maximum peak reverse pulse current a 10/1000us waveform ⁽¹⁾	I _{PP}	See Next Table	A
Peak forward surge current 8.3ms single half sine-wave ⁽²⁾	I _{FSM}	300	A
Operating junction and storage temperature range	T _J , T _{STG}	-55 to +150	°C

Notes:

1.Non-repetitive current pulse,per Fig.5 and detated above TA=25°C per Fig.1

2.Measured on 8.3ms single half sine-wave,or equivalent square wave,duty cycle=4 pulses per minute maximum

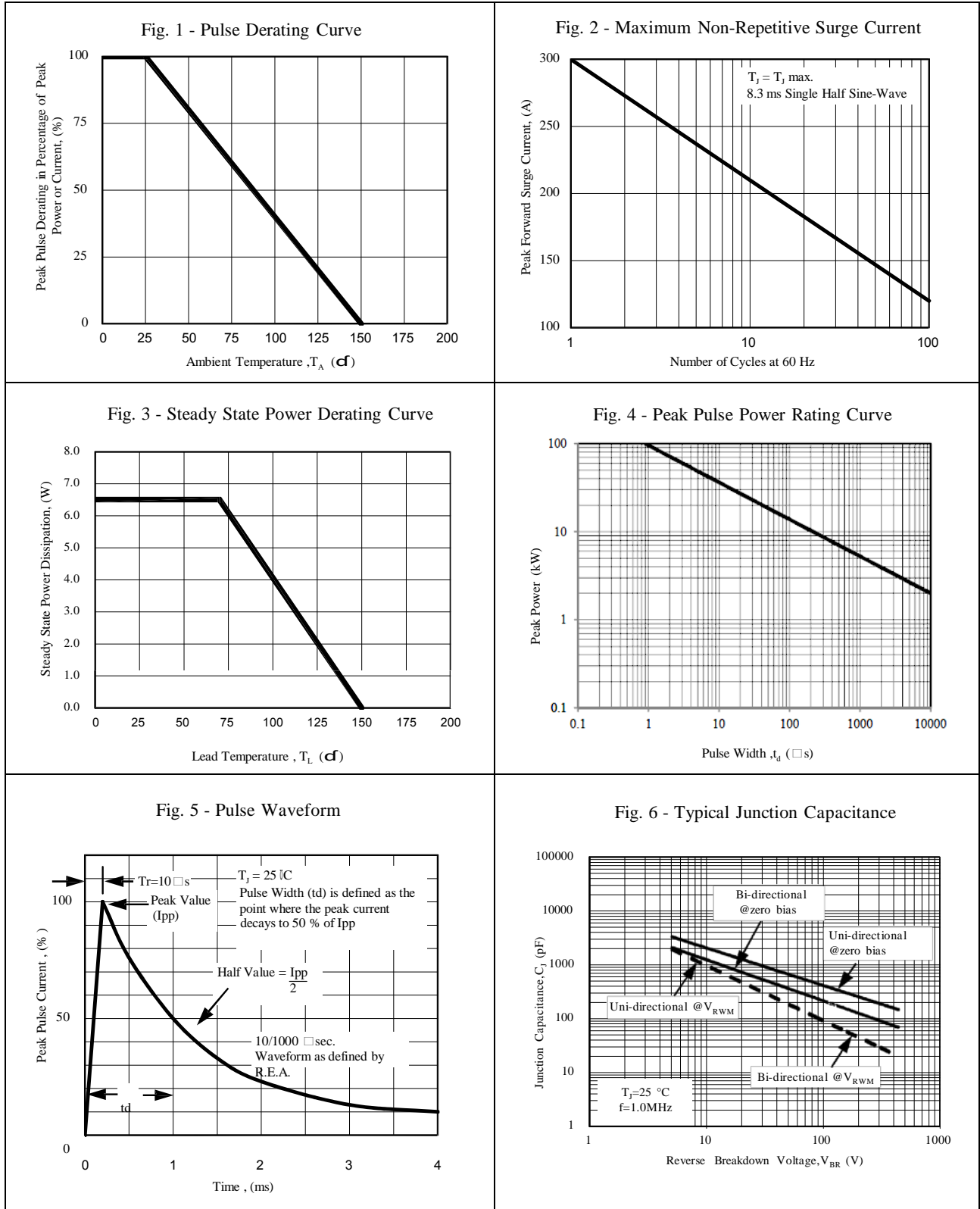
Electrical Characteristics

(T_A = 25 °C unless otherwise specified)

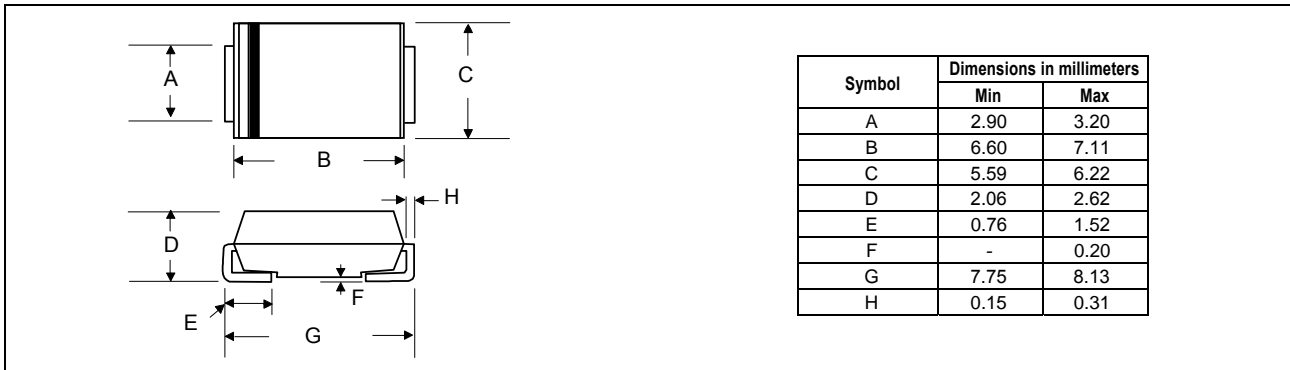
Part Number	Marking	Direction	Maximum Working Voltage V _{RWM} (V)	Maximum Reverse Current @ V _{RWM} I _R max(μA)	Breakdown Voltage @ I _T			Peak Surge Current I _{PP} (A)	Maximum Clamping Voltage @ I _{PP} V _C (V)
					V _{BR} min(V)	V _{BR} max(V)	I _T (mA)		
5.0SMDJ11A	5PEN	Uni-Dir	11.0	800	12.2	13.50	10	274.70	18.2
5.0SMDJ11CA	5BEN	Bi-Dir	11.0	800	12.2	13.50	10	274.70	18.2
5.0SMDJ12A	5PEP	Uni-Dir	12.0	800	13.3	14.70	10	251.30	19.9
5.0SMDJ12CA	5BEP	Bi-Dir	12.0	800	13.3	14.70	10	251.30	19.9
5.0SMDJ13A	5PEQ	Uni-Dir	13.0	500	14.4	15.90	10	232.60	21.5
5.0SMDJ13CA	5BEQ	Bi-Dir	13.0	500	14.4	15.90	10	232.60	21.5
5.0SMDJ14A	5PER	Uni-Dir	14.0	200	15.6	17.20	10	215.50	23.2
5.0SMDJ14CA	5BER	Bi-Dir	14.0	200	15.6	17.20	10	215.50	23.2
5.0SMDJ15A	5PES	Uni-Dir	15.0	100	16.7	18.50	1	204.90	24.4
5.0SMDJ15CA	5BES	Bi-Dir	15.0	100	16.7	18.50	1	204.90	24.4
5.0SMDJ16A	5PET	Uni-Dir	16.0	50	17.8	19.70	1	192.30	26.0
5.0SMDJ16CA	5BET	Bi-Dir	16.0	50	17.8	19.70	1	192.30	26.0
5.0SMDJ17A	5PEU	Uni-Dir	17.0	20	18.9	20.90	1	181.20	27.6
5.0SMDJ17CA	5BEU	Bi-Dir	17.0	20	18.9	20.90	1	181.20	27.6
5.0SMDJ18A	5PEV	Uni-Dir	18.0	10	20.0	22.10	1	171.20	29.2
5.0SMDJ18CA	5BEV	Bi-Dir	18.0	10	20.0	22.10	1	171.20	29.2
5.0SMDJ20A	5PEW	Uni-Dir	20.0	5	22.2	24.50	1	154.30	32.4
5.0SMDJ20CA	5BEW	Bi-Dir	20.0	5	22.2	24.50	1	154.30	32.4
5.0SMDJ22A	5PEX	Uni-Dir	22.0	5	24.4	26.90	1	140.80	35.5
5.0SMDJ22CA	5BEX	Bi-Dir	22.0	5	24.4	26.90	1	140.80	35.5
5.0SMDJ24A	5PEZ	Uni-Dir	24.0	5	26.7	29.50	1	128.50	38.9
5.0SMDJ24CA	5BEZ	Bi-Dir	24.0	5	26.7	29.50	1	128.50	38.9
5.0SMDJ26A	5PFE	Uni-Dir	26.0	5	28.9	31.90	1	118.80	42.1
5.0SMDJ26CA	5BFE	Bi-Dir	26.0	5	28.9	31.90	1	118.80	42.1
5.0SMDJ28A	5PFG	Uni-Dir	28.0	5	31.1	34.40	1	110.10	45.4
5.0SMDJ28CA	5BFG	Bi-Dir	28.0	5	31.1	34.40	1	110.10	45.4
5.0SMDJ30A	5PFK	Uni-Dir	30.0	5	33.3	36.80	1	103.30	48.4
5.0SMDJ30CA	5BFK	Bi-Dir	30.0	5	33.3	36.80	1	103.30	48.4
5.0SMDJ33A	5PFM	Uni-Dir	33.0	5	36.7	40.60	1	93.80	53.3
5.0SMDJ33CA	5BFM	Bi-Dir	33.0	5	36.7	40.60	1	93.80	53.3
5.0SMDJ36A	5PFP	Uni-Dir	36.0	5	40.0	44.20	1	86.10	58.1
5.0SMDJ36CA	5BFP	Bi-Dir	36.0	5	40.0	44.20	1	86.10	58.1
5.0SMDJ40A	5PFR	Uni-Dir	40.0	5	44.4	49.10	1	77.50	64.5
5.0SMDJ40CA	5BFR	Bi-Dir	40.0	5	44.4	49.10	1	77.50	64.5
5.0SMDJ43A	5PFT	Uni-Dir	43.0	5	47.8	52.80	1	72.00	69.4
5.0SMDJ43CA	5BFT	Bi-Dir	43.0	5	47.8	52.80	1	72.00	69.4

Part Number	Marking	Direction	Maximum Working Voltage V_{RWM} (V)	Maximum Reverse Current@ V_{RWM} I_R max(uA)	Breakdown Voltage@ I_T			Peak Surge Current I_{PP} (A)	Maximum Clamping Voltage@ I_{PP} V_C (V)
					V_{BR} min(V)	V_{BR} max(V)	I_T (mA)		
5.0SMDJ45A	5PFV	Uni-Dir	45.0	5	50.0	55.30	1	68.80	72.7
5.0SMDJ45CA	5BFV	Bi-Dir	45.0	5	50.0	55.30	1	68.80	72.7
5.0SMDJ48A	5PFX	Uni-Dir	48.0	5	53.3	58.90	1	64.60	77.4
5.0SMDJ48CA	5BFX	Bi-Dir	48.0	5	53.3	58.90	1	64.60	77.4
5.0SMDJ51A	5PFZ	Uni-Dir	51.0	5	56.7	62.70	1	60.70	82.4
5.0SMDJ51CA	5BFZ	Bi-Dir	51.0	5	56.7	62.70	1	60.70	82.4
5.0SMDJ54A	5PGE	Uni-Dir	54.0	5	60.0	66.30	1	57.40	87.1
5.0SMDJ54CA	5BGE	Bi-Dir	54.0	5	60.0	66.30	1	57.40	87.1
5.0SMDJ58A	5PGG	Uni-Dir	58.0	5	64.4	71.20	1	53.40	93.6
5.0SMDJ58CA	5BGG	Bi-Dir	58.0	5	64.4	71.20	1	53.40	93.6
5.0SMDJ60A	5PGK	Uni-Dir	60.0	5	66.7	73.70	1	51.70	96.8
5.0SMDJ60CA	5BGK	Bi-Dir	60.0	5	66.7	73.70	1	51.70	96.8
5.0SMDJ64A	5PGM	Uni-Dir	64.0	5	71.1	78.60	1	48.50	103.0
5.0SMDJ64CA	5BGM	Bi-Dir	64.0	5	71.1	78.60	1	48.50	103.0
5.0SMDJ70A	5PGP	Uni-Dir	70.0	5	77.8	86.00	1	44.20	113.0
5.0SMDJ70CA	5BGB	Bi-Dir	70.0	5	77.8	86.00	1	44.20	113.0
5.0SMDJ75A	5PGR	Uni-Dir	75.0	5	83.3	92.10	1	41.30	121.0
5.0SMDJ75CA	5BGR	Bi-Dir	75.0	5	83.3	92.10	1	41.30	121.0
5.0SMDJ78A	5PGT	Uni-Dir	78.0	5	86.7	95.80	1	39.70	126.0
5.0SMDJ78CA	5BGT	Bi-Dir	78.0	5	86.7	95.80	1	39.70	126.0
5.0SMDJ85A	5PGV	Uni-Dir	85.0	5	94.4	104.00	1	36.50	137.0
5.0SMDJ85CA	5BGV	Bi-Dir	85.0	5	94.4	104.00	1	36.50	137.0
5.0SMDJ90A	5PGX	Uni-Dir	90.0	5	100.0	111.00	1	34.20	146.0
5.0SMDJ90CA	5BGX	Bi-Dir	90.0	5	100.0	111.00	1	34.20	146.0
5.0SMDJ100A	5PGZ	Uni-Dir	100.0	5	111.0	123.00	1	30.90	162.0
5.0SMDJ100CA	5BGZ	Bi-Dir	100.0	5	111.0	123.00	1	30.90	162.0
5.0SMDJ110A	5PHE	Uni-Dir	110.0	5	122.0	135.00	1	28.20	177.0
5.0SMDJ110CA	5BHE	Bi-Dir	110.0	5	122.0	135.00	1	28.20	177.0
5.0SMDJ120A	5PHG	Uni-Dir	120.0	5	133.0	147.00	1	25.90	193.0
5.0SMDJ120CA	5BHG	Bi-Dir	120.0	5	133.0	147.00	1	25.90	193.0
5.0SMDJ130A	5PHK	Uni-Dir	130.0	5	144.0	159.00	1	23.90	209.0
5.0SMDJ130CA	5BHK	Bi-Dir	130.0	5	144.0	159.00	1	23.90	209.0
5.0SMDJ140A	5PHL	Uni-Dir	140.0	5	155.0	171.00	1	22.00	226.8
5.0SMDJ140CA	5BHL	Bi-Dir	140.0	5	155.0	171.00	1	22.00	226.8
5.0SMDJ150A	5PHM	Uni-Dir	150.0	5	167.0	185.00	1	20.60	243.0
5.0SMDJ150CA	5BHM	Bi-Dir	150.0	5	167.0	185.00	1	20.60	243.0
5.0SMDJ160A	5PHP	Uni-Dir	160.0	5	178.0	197.00	1	19.30	259.0
5.0SMDJ160CA	5BHB	Bi-Dir	160.0	5	178.0	197.00	1	19.30	259.0
5.0SMDJ170A	5PHR	Uni-Dir	170.0	5	189.0	209.00	1	18.20	275.0
5.0SMDJ170CA	5BHR	Bi-Dir	170.0	5	189.0	209.00	1	18.20	275.0

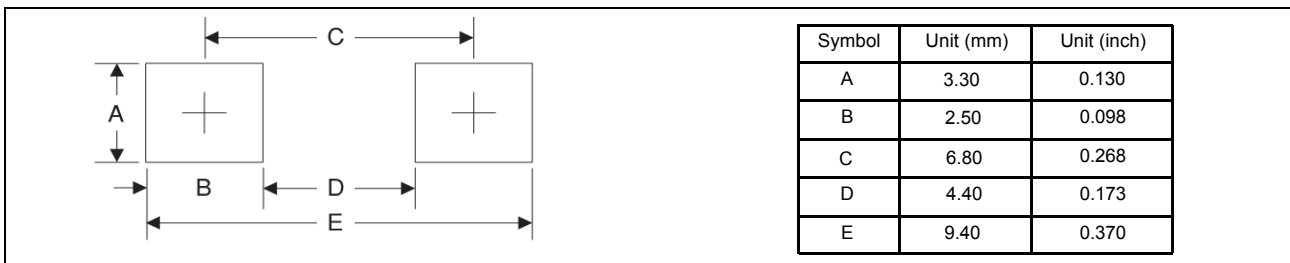
Typical Characteristics ($T_{amb} = 25\text{ }^{\circ}\text{C}$ unless otherwise specified)



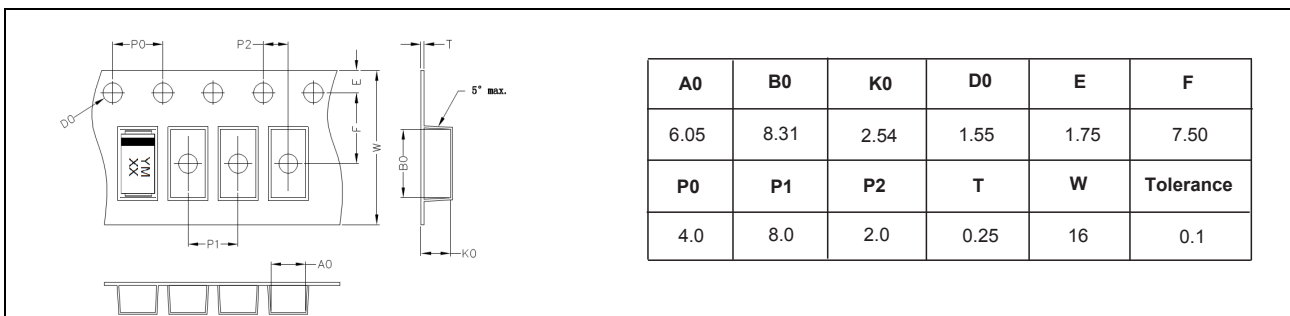
Package Dimensions



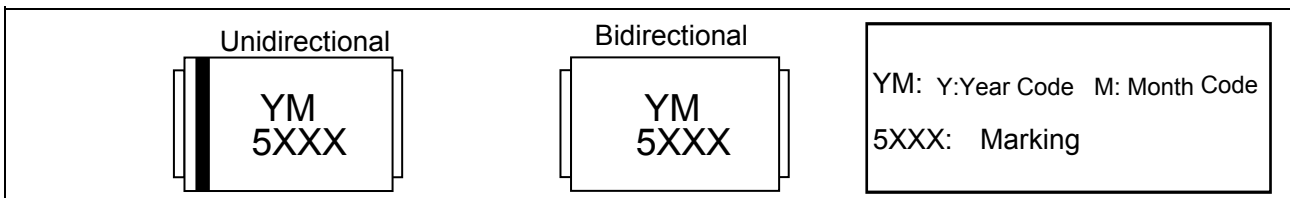
PAD Dimensions



Packing Information



Marking



Ordering information

Order code	Package	Packaging option	Base quantity	Packaging specification
5.0SMDJ Series	DO-214AB/SMC	Tape and reel	3000pcs / reel	EIA STD RS-481

Revision history

Date	Revision	Changes
23-May-2020	1.0	Initial release

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