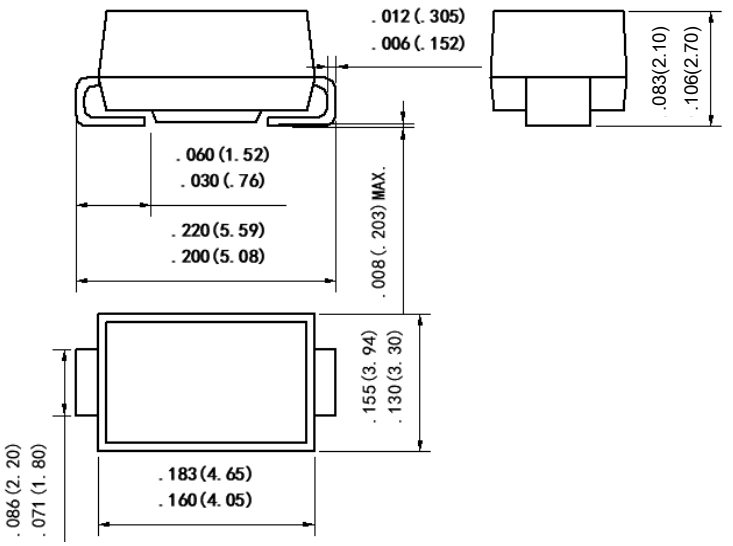
DO214AA/(SMB)



Unit: inch (mm)

Features

- Glass passivated chip
- 1500 W peak pulse power capability with a 10/1000 us waveform, repetitive rate (duty cycle):0.01 %
- Excellent clamping capability
- Low reverse leakage
- Very fast response time
- Lead and body according with RoHS standard

Mechanical Data

- Case : DO-214AA/(SMB) Molded plastic
- Lead: Solderable per MIL-STD-750, method 2026
- Epoxy: UL 94V-0 rate flame retardant
- Polarity: Color band denotes cathode end except Bipolar
- Mounting position: Any

Maximum Ratings & Characteristics Ratings at 25℃ ambient temperature unless otherwise specified.

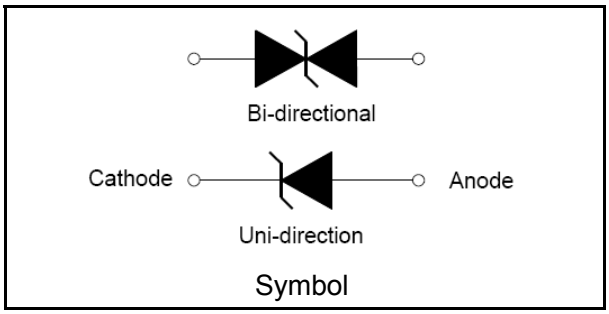
Parameter	Symbols	Value	Unit
Peak power dissipation with a 10/1000 us waveform(1)	P_{PP}	1500	W
Peak pulse current wih a 10/1000 us waveform(1)	I_{PP}	See Next Table	A
Power dissipation on infinite heatsink at TL = 75 °C	P_D	5.0	W
Peak forward surge current, 8.3 ms single half sinewave unidirectional only(2)	I_{FSM}	100	A
Maximum instantaneous forward voltage at 50 A for unidirectional only(3)	V_F	3.5/6.5	V
Operating junction and storage temperature range	T_J , T_{STG}	-55 to +150	℃

Note:

1)Non-repetitive current pulse per Fig.5 and derated above TA= 25 °C per Fig.1 ;

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

3)VF<3.5V for devices of VBR<200V and VF<6.5V for devices of VBR>201V。



Symbol

Part Number		Device Marking Code		Reverse Stand-off Voltage	Breakdown Voltage V_{BR} @ I_T		Test Current	Max. Clamping Voltage @ I_{PP}	Max. Peak Pulse Current	Max. Reverse Leakage @ V_{RWM}
UNI-POLAR	BI-POLAR	UNI	BI	V_{RWM}(V)	Min.(V)	Max.(V)	I_T(mA)	$V_{C\ MAX.}$(V)	I_{PP}(A)	I_R(uA)
SMB15J5.0AX	SMB15J5.0CAX	GDE	BDE	5.0	6.40	7.00	10	9.2	163.0	800
SMB15J6.0AX	SMB15J6.0CAX	GDG	BDG	6.0	6.67	7.37	10	10.3	145.7	800
SMB15J6.5AX	SMB15J6.5CAX	GDK	BDK	6.5	7.22	7.98	10	11.2	134.0	500
SMB15J7.0AX	SMB15J7.0CAX	GDM	BDM	7.0	7.78	8.60	10	12.0	125.0	200
SMB15J7.5AX	SMB15J7.5CAX	GDP	BDP	7.5	8.33	9.21	1	12.9	116.3	100
SMB15J8.0AX	SMB15J8.0CAX	GDR	BDR	8.0	8.89	9.83	1	13.6	110.3	50
SMB15J8.5AX	SMB15J8.5CAX	GDT	BDT	8.5	9.44	10.40	1	14.4	104.2	20
SMB15J9.0AX	SMB15J9.0CAX	GDV	BDV	9.0	10.00	11.10	1	15.4	97.4	10
SMB15J10AX	SMB15J10CAX	GDX	BDX	10.0	11.10	12.30	1	17.0	88.3	5
SMB15J11AX	SMB15J11CAX	GDZ	BDZ	11.0	12.20	13.50	1	18.2	82.5	1
SMB15J12AX	SMB15J12CAX	GEE	BEE	12.0	13.30	14.70	1	19.9	75.4	1
SMB15J13AX	SMB15J13CAX	GEG	BEG	13.0	14.40	15.90	1	21.5	69.8	1
SMB15J14AX	SMB15J14CAX	GEK	BEK	14.0	15.60	17.20	1	23.2	64.7	1
SMB15J15AX	SMB15J15CAX	GEM	BEM	15.0	16.70	18.50	1	24.4	61.5	1
SMB15J16AX	SMB15J16CAX	GEP	BEP	16.0	17.80	19.70	1	26.0	57.7	1
SMB15J17AX	SMB15J17CAX	GER	BER	17.0	18.90	20.90	1	27.6	54.4	1
SMB15J18AX	SMB15J18CAX	GET	BET	18.0	20.00	22.10	1	29.2	51.4	1
SMB15J20AX	SMB15J20CAX	GEV	BEV	20.0	22.20	24.50	1	32.4	46.3	1
SMB15J22AX	SMB15J22CAX	GEX	BEX	22.0	24.40	26.90	1	35.5	42.3	1
SMB15J24AX	SMB15J24CAX	GEZ	BEZ	24.0	26.70	29.50	1	38.9	38.6	1
SMB15J26AX	SMB15J26CAX	GFE	BFE	26.0	28.90	31.90	1	42.1	35.7	1
SMB15J28AX	SMB15J28CAX	GFG	BFG	28.0	31.10	34.40	1	45.4	33.1	1
SMB15J30AX	SMB15J30CAX	GFK	BFK	30.0	33.50	36.80	1	48.4	31.0	1
SMB15J33AX	SMB15J33CAX	GFM	BFM	33.0	36.70	40.60	1	53.3	28.2	1
SMB15J36AX	SMB15J36CAX	GFP	BFP	36.0	40.00	44.20	1	58.1	25.9	1
SMB15J40AX	SMB15J40CAX	GFR	BFR	40.0	44.40	49.10	1	64.5	23.3	1
SMB15J43AX	SMB15J43CAX	GFT	BFT	43.0	47.80	52.80	1	69.4	21.7	1
SMB15J45AX	SMB15J45CAX	GFV	BFV	45.0	50.00	55.30	1	72.7	20.6	1
SMB15J48AX	SMB15J48CAX	GFX	BFX	48.0	53.30	58.90	1	77.4	19.4	1
SMB15J51AX	SMB15J51CAX	GFZ	BFZ	51.0	56.70	62.70	1	82.4	18.2	1
SMB15J54AX	SMB15J54CAX	GGE	BGE	54.0	60.00	66.30	1	87.1	17.3	1
SMB15J58AX	SMB15J58CAX	GGG	BGG	58.0	64.40	71.20	1	93.6	16.1	1
SMB15J60AX	SMB15J60CAX	GGK	BGK	60.0	66.70	73.70	1	96.8	15.5	1
SMB15J64AX	SMB15J64CAX	GGM	BGM	64.0	71.10	78.60	1	103.0	14.6	1
SMB15J70AX	SMB15J70CAX	GGP	BGP	70.0	77.80	86.00	1	113.0	13.3	1
SMB15J75AX	SMB15J75CAX	GGR	BGR	75.0	83.30	92.10	1	121.0	12.4	1
SMB15J78AX	SMB15J78CAX	GGT	BGT	78.0	86.70	95.80	1	126.0	11.9	1
SMB15J85AX	SMB15J85CAX	GGV	BGV	85.0	94.4	104.0	1	137.0	11.0	1
SMB15J90AX	SMB15J90CAX	GGX	BGX	90.0	100.0	111.0	1	146.0	10.3	1
SMB15J100AX	SMB15J100CAX	GGZ	BGZ	100.0	111.0	123.0	1	162.0	9.3	1
SMB15J110AX	SMB15J110CAX	GHE	BHE	110.0	122.0	135.0	1	177.0	8.5	1
SMB15J120AX	SMB15J120CAX	GHG	BHG	120.0	133.0	147.0	1	193.0	7.8	1
SMB15J130AX	SMB15J130CAX	GHK	BHK	130.0	144.0	159.0	1	209.0	7.2	1
SMB15J150AX	SMB15J150CAX	GHM	BHM	150.0	167.0	185.0	1	243.0	6.2	1
SMB15J160AX	SMB15J160CAX	GHP	BHP	160.0	178.0	197.0	1	259.0	5.8	1
SMB15J170AX	SMB15J170CAX	GHR	BHR	170.0	189.0	209.0	1	275.0	5.5	1
SMB15J180AX	SMB15J180CAX	GHT	BHT	180.0	201.0	222.0	1	292.0	5.1	1
SMB15J190AX		GHU		190.0	209.0	243.0	1	308.0	4.8	1
SMB15J200AX		GHV		200.0	224.0	247.0	1	324.0	4.6	1
SMB15J210AX		GHW		210.0	231.0	268.0	1	340.0	4.4	1
SMB15J220AX		GHX		220.0	246.0	272.0	1	356.0	4.2	1

Ratings and Characteristics Curves (TA=25℃ unless otherwise noted)

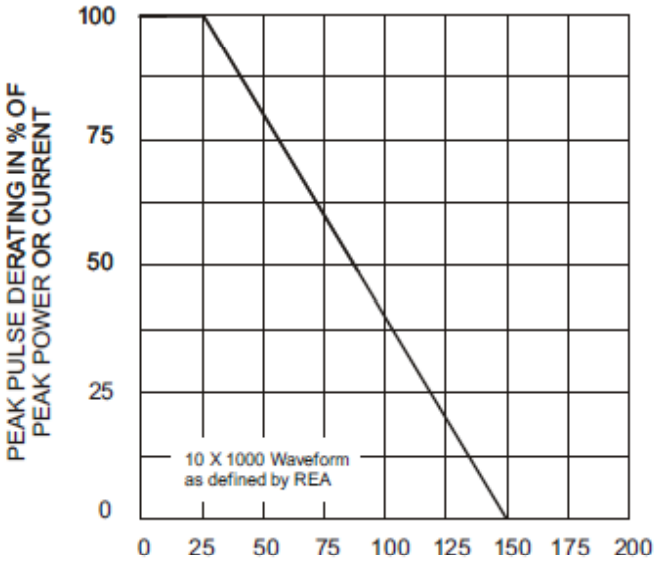


Fig. 1 - Pulse Derating Curve

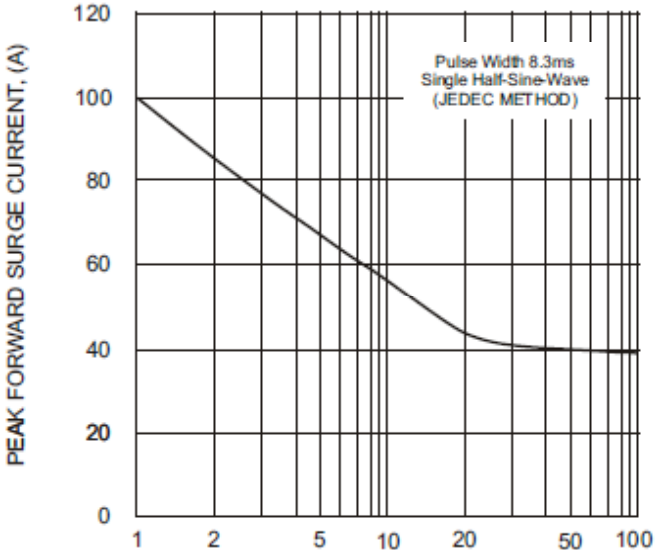


Fig. 2 - Maximum Non-Repetitive Surge Current

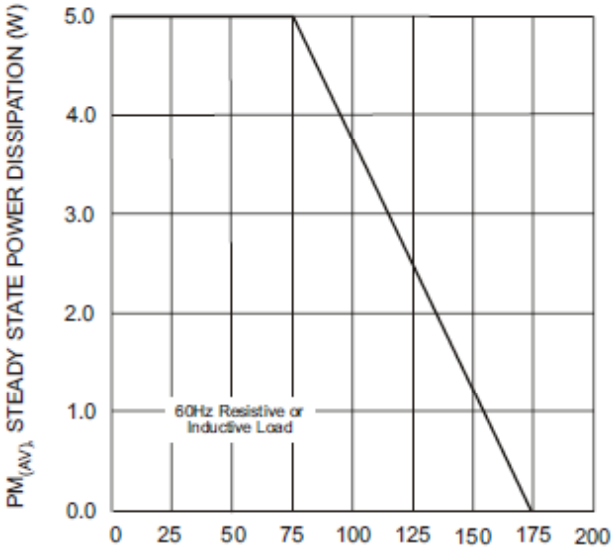


Fig. 3 - Steady State Power Derating Curve

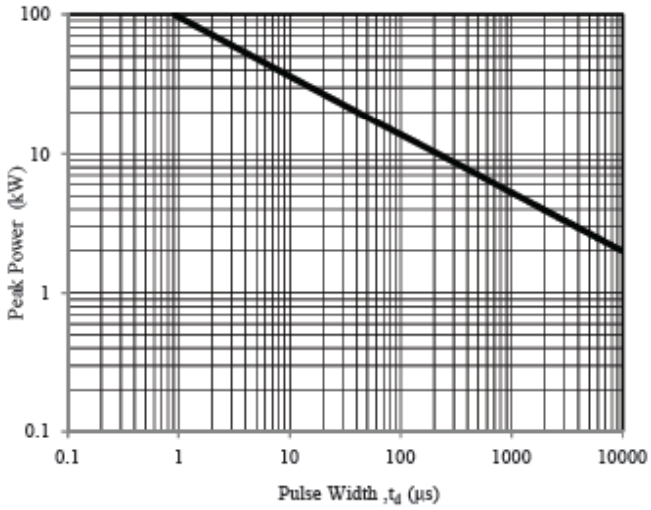


Fig. 4 - Peak Pulse Power Rating Curve

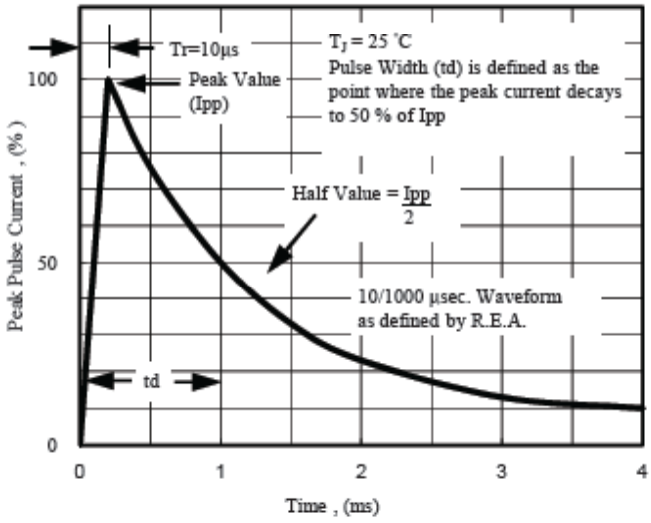


Fig. 5 - Pulse Waveform

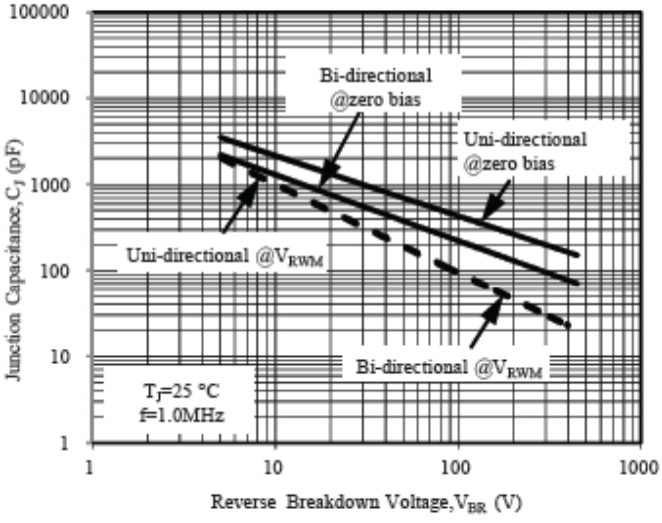


Fig. 6 - Typical Junction Capacitance