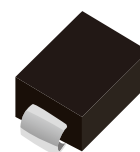
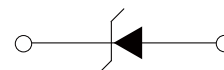


FEATURES

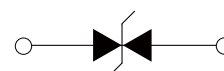
- | Low profile package
- | Ideal for automated placement
- | 3000 Watt peak pulse power capability with a 10/1000µs waveform
- | For surface mounted applicatons to optimize board space
- | Excellent clamping capability
- | Very fast response time
- | Low incremental surge resistance



DO-214AA(SMB)



Uni-directionnal



Bi-directionnal

APPLICATIONS

- | Power supply protection
- | Automotive application
- | Industrial application
- | Power management

APPROVALS

RoHS	Compliance with 2011/65/EU
HF	Compliance with IEC61249-2-21:2003

MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$)

Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation on 10/1000us waveform (Note1, Note2).	P_{PPM}	3000	Watts
Steady State Power Dissipation at $T_L=75^{\circ}\text{C}$, Lead lengths.375" (9.5mm) (Note2)	P_D	6.5	Watts

Notes : 1.Non-repetitive current pulse, $T_A=25^{\circ}\text{C}$.
 2.Mounted on 5.0mm*5.0mm (0.03mm thick) Copper Pads to each terminal.

THERMAL CONSIDERATIONS

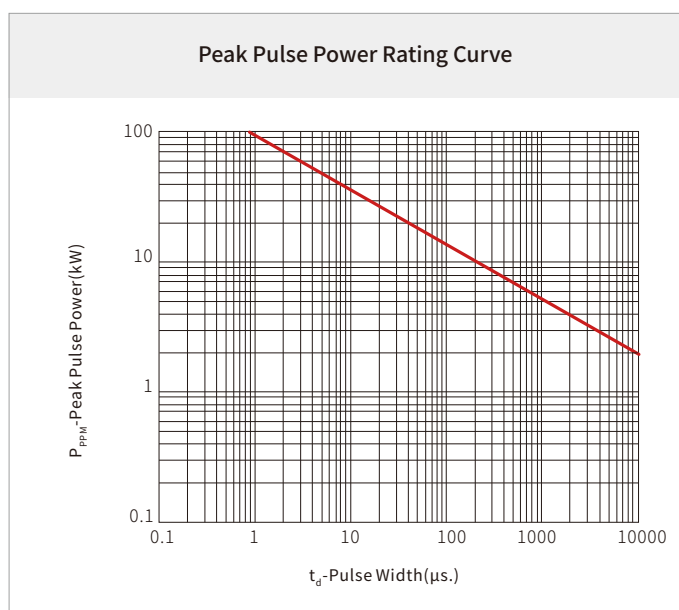
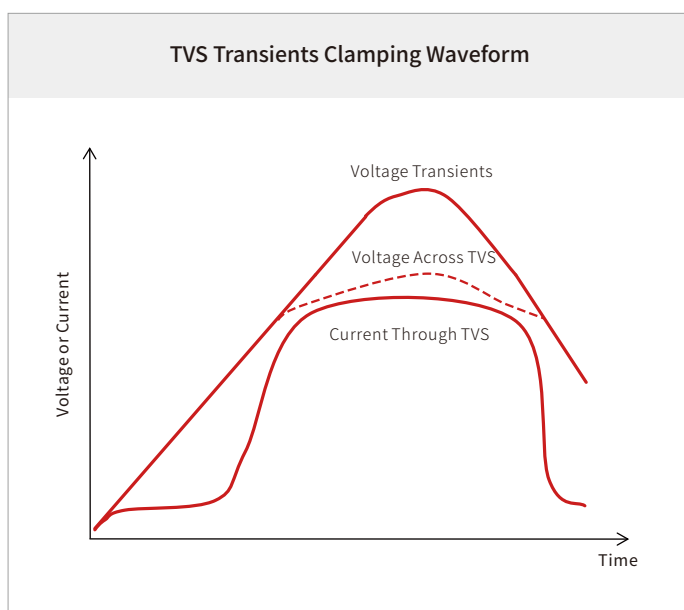
Parameter	Symbol	Value	Unit
Operating Junction Temperature	T_J	-55 to +150	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS (T_A=25°C)

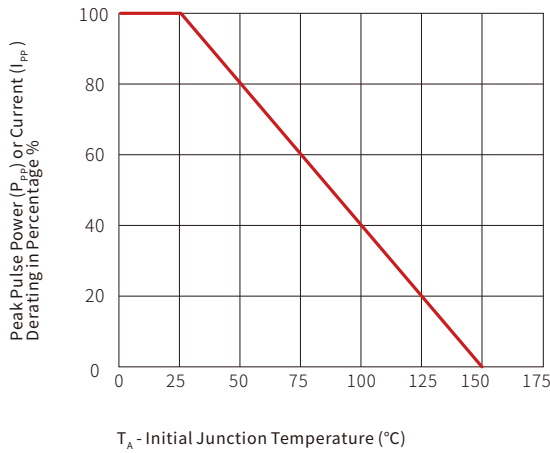
Part Number		Device Marking Code		Reverse Stand-off Voltage	Breakdown Voltage Min.@I _T	Breakdown Voltage Max.@I _T	Test Current	Maximum Clamping Voltage @I _{PP}	Peak Pulse Current	Reverse Leakage @V _{RWM}
Uni-Polar	Bi-Polar	Uni	Bi	V _{RWM} (V)	V _{BR} (V)	V _{BR} (V)	I _T (mA)	V _c (V)	I _{PP} (A)	I _R (uA)
3.0SMBJ11A	3.0SMBJ11CA	PDZ	DDZ	11.0	12.2	13.5	1	18.2	164.8	800
3.0SMBJ12A	3.0SMBJ12CA	PEE	DEE	12.0	13.3	14.7	1	19.9	150.8	800
3.0SMBJ13A	3.0SMBJ13CA	PEG	DEG	13.0	14.4	15.9	1	21.5	139.5	500
3.0SMBJ14A	3.0SMBJ14CA	PEK	DEK	14.0	15.6	17.2	1	23.2	129.3	200
3.0SMBJ15A	3.0SMBJ15CA	PEM	DEM	15.0	16.7	18.5	1	24.4	123.0	200
3.0SMBJ16A	3.0SMBJ16CA	PEP	DEP	16.0	17.8	19.7	1	26.0	115.4	100
3.0SMBJ17A	3.0SMBJ17CA	PER	DER	17.0	18.9	20.9	1	27.6	108.7	50
3.0SMBJ18A	3.0SMBJ18CA	PET	DET	18.0	20.0	22.1	1	29.2	102.7	20
3.0SMBJ20A	3.0SMBJ20CA	PEV	DEV	20.0	22.2	24.5	1	32.4	92.6	10
3.0SMBJ22A	3.0SMBJ22CA	PEX	DEX	22.0	24.4	26.9	1	35.5	84.5	5
3.0SMBJ24A	3.0SMBJ24CA	PEZ	DEZ	24.0	26.7	29.5	1	38.9	77.1	5
3.0SMBJ26A	3.0SMBJ26CA	PFE	DFE	26.0	28.9	31.9	1	42.1	71.3	5
3.0SMBJ28A	3.0SMBJ28CA	PFG	DFG	28.0	31.1	34.4	1	45.4	66.1	5
3.0SMBJ30A	3.0SMBJ30CA	PFK	DFK	30.0	33.3	36.8	1	48.4	62.0	5
3.0SMBJ33A	3.0SMBJ33CA	PFM	DFM	33.0	36.7	40.6	1	53.3	56.3	5
3.0SMBJ36A	3.0SMBJ36CA	PFP	DFP	36.0	40.0	44.2	1	58.1	51.6	5
3.0SMBJ40A	3.0SMBJ40CA	PFR	DFR	40.0	44.4	49.1	1	64.5	46.5	5
3.0SMBJ43A	3.0SMBJ43CA	PFT	DFT	43.0	47.8	52.8	1	69.4	43.2	5
3.0SMBJ45A	3.0SMBJ45CA	PFV	DFV	45.0	50.0	55.3	1	72.7	41.3	5
3.0SMBJ48A	3.0SMBJ48CA	PFX	DFX	48.0	53.3	58.9	1	77.4	38.8	5
3.0SMBJ51A	3.0SMBJ51CA	PFZ	DFZ	51.0	56.7	62.7	1	82.4	36.4	5
3.0SMBJ54A	3.0SMBJ54CA	RGE	DGE	54.0	60.0	66.3	1	87.1	34.4	5
3.0SMBJ58A	3.0SMBJ58CA	PGG	DGG	58.0	64.4	71.2	1	93.6	32.1	5
3.0SMBJ60A	3.0SMBJ60CA	PGK	DGK	60.0	66.7	73.7	1	96.8	31.0	5
3.0SMBJ64A	3.0SMBJ64CA	PGM	DGM	64.0	71.1	78.6	1	103.0	29.1	5
3.0SMBJ70A	3.0SMBJ70CA	PGP	DGP	70.0	77.8	86.0	1	113.0	26.5	5
3.0SMBJ75A	3.0SMBJ75CA	PGR	DGR	75.0	83.3	92.1	1	121.0	24.8	5
3.0SMBJ78A	3.0SMBJ78CA	PGT	DGT	78.0	86.7	95.8	1	126.0	23.8	5

Part Number		Device Marking Code		Reverse Stand-off Voltage	Breakdown Voltage Min.@ I_T	Breakdown Voltage Max.@ I_T	Test Current	Maximum Clamping Voltage @ I_{PP}	Peak Pulse Current	Reverse Leakage @ V_{RWM}
Uni-Polar	Bi-Polar	Uni	Bi	$V_{RWM}(V)$	$V_{BR}(V)$	$V_{BR}(V)$	$I_T(mA)$	$V_C(V)$	$I_{PP}(A)$	$I_R(\mu A)$
3.0SMBJ85A	3.0SMBJ85CA	PGV	DGV	85.0	94.4	104.0	1	137.0	21.9	5
3.0SMBJ90A	3.0SMBJ90CA	PGX	DGX	90.0	100.0	111.0	1	146.0	20.5	5
3.0SMBJ100A	3.0SMBJ100CA	PGZ	DGZ	100.0	111.0	123.0	1	162.0	18.5	5
3.0SMBJ110A	3.0SMBJ110CA	PHE	DHE	110.0	122.0	135.0	1	177.0	16.9	5
3.0SMBJ120A	3.0SMBJ120CA	PHG	DHG	120.0	133.0	147.0	1	193.0	15.5	5
3.0SMBJ130A	3.0SMBJ130CA	PHK	DHK	130.0	144.0	159.0	1	209.0	14.4	5
3.0SMBJ150A	3.0SMBJ150CA	PHM	DHM	150.0	167.0	185.0	1	243.0	12.3	5

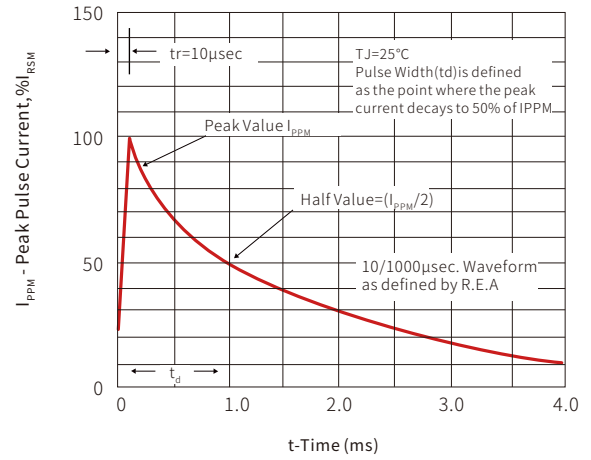
CHARACTERISTIC CURVES



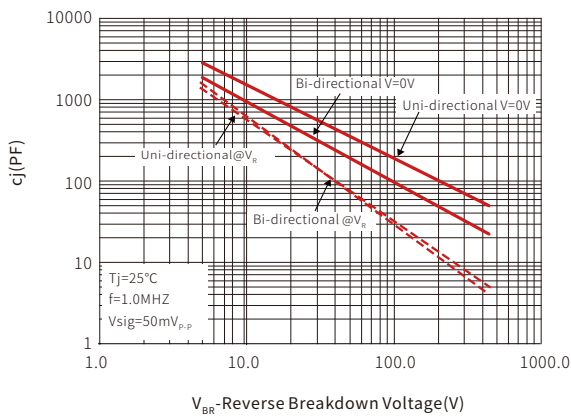
Pulse Derating Curve



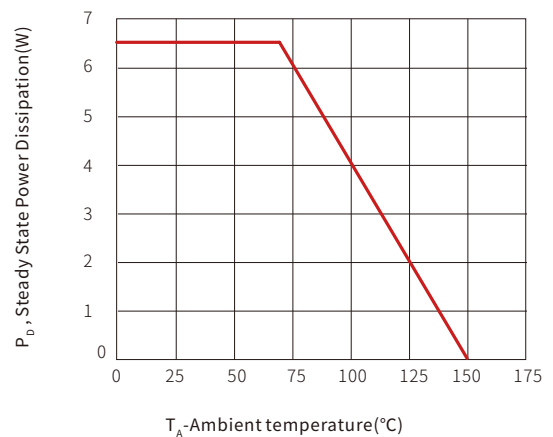
Pulse Waveform



Typical Junction Capacitance

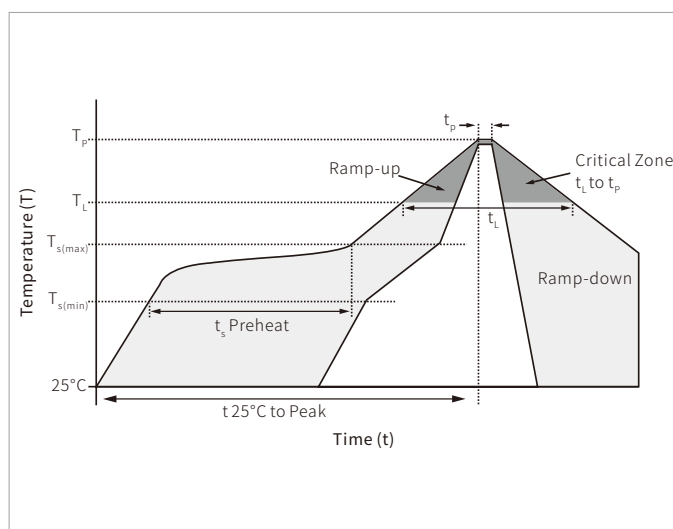


Steady State Power Dissipation Derating Curve

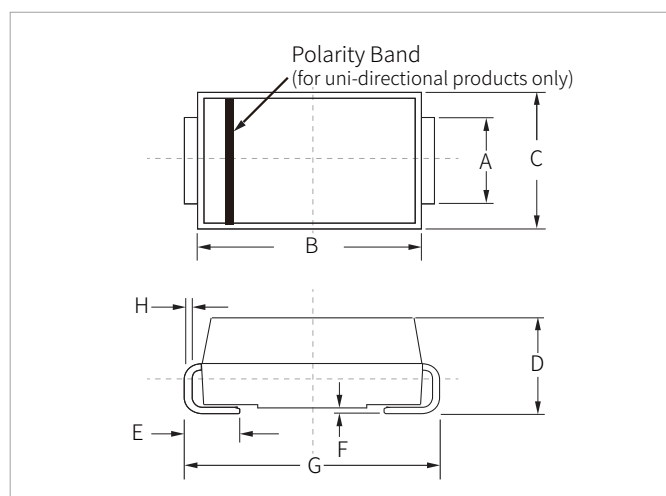


SOLDERING PARAMETERS

Reflow Condition		Lead-free assembly
Pre Heat	Temperature Max ($T_{s(min)}$)	150°C
	Temperature Max ($T_{s(max)}$)	200°C
	Time (min to max) (t_s)	60 – 180 secs
Average ramp up rate (Liquidus Temp (T_L) to peak		3°C/second max
$T_{s(max)}$ to T_L - Ramp-up Rate		3°C/second max
Reflow	Temperature (T_L) (Liquidus)	217°C
	Time (min to max) (t_L)	60 – 150 seconds
Peak Temperature (T_p)		260°C
Time within 5°C of actual peak Temperature (t_p)		20 – 40 seconds
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature (T_p)		8 minutes max.
Do not exceed		260°C

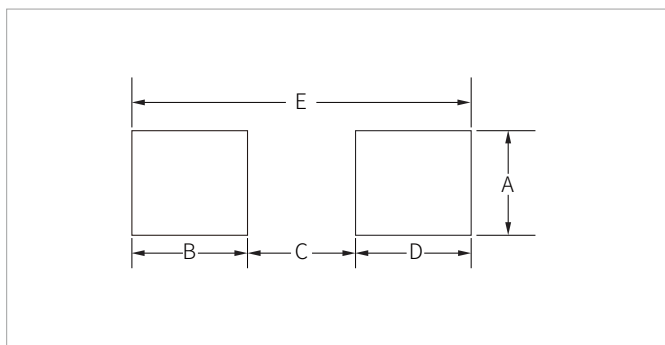


DO-214AA(SMB) PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.80	2.20	0.071	0.087
B	4.30	4.70	0.170	0.185
C	3.40	3.90	0.134	0.153
D	2.15	2.75	0.085	0.108
E	1.00	1.50	0.039	0.059
F	0.02	0.20	0.001	0.008
G	5.10	5.50	0.200	0.216
H	0.15	0.30	0.006	0.012

RECOMMENDED PAD LAYOUT DIMENSIONS



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	2.20	-	0.087	-
B	1.45	-	0.057	-
C	-	2.55	-	0.010
D	1.45	-	0.057	-
E	5.60REF		0.220REF	

ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
3.0SMBJxx(C)A	DO-214AA(SMB)	3000PCS	13"

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