

# MSKSEMI

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

Product data sheet

[www.msksemi.com](http://www.msksemi.com)



SMB

### Features

- Low capacitance
- Cannot be damaged by voltage
- Will not fatigue
- Eliminate voltage overshoot
- Glass passivated junction
- Halogen free and RoHS compliant

### Mechanical Data

- CASE: SMB(DO-214AA) Molded Plastic
- UL Flammability Classification Rating 94V0
- Mounting Position:Any

### Maximum Ratings & Thermal Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbol	Value	Units	Remarks
Peak Pulse Voltage	$V_{PP}$	4000	V	10/700us
Peak Pulse Current	$I_{PP}$	80	A	10/1000us
Peak Pulse Current	$I_{PK}$	250	A	8/20us
Peak One-cycle Surge Current	$I_{TSM}$	25	A	60Hz
Rate of Rise of Current	di/dt	500	A/us	
Typical Thermal Resistance Junction to Lead	$R_{\theta JL}$	20	°C/W	
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	100	°C/W	
Operating Temperature Range	$T_J$	-40 to 150	°C	
Storage Temperature Range	$T_{STG}$	-55 to 150	°C	

## Electrical Characteristics

(Ratings at 25 °C ambient temperature unless otherwise specified).

P/N	Mark	V <sub>S</sub> @100KV/S V MAX	I <sub>S_LMT</sub> mA	V <sub>T</sub> @ I <sub>T</sub> V MAX	I <sub>T</sub> A	I <sub>D</sub> @ V <sub>D</sub> uA MAX	V <sub>D</sub> V	C <sub>O</sub> @1MHz,2V <sub>DC</sub> pF TYP	I <sub>H</sub> mA TYP
P0080SB-MS	P008B XXXX	25	500	4	2.2	5	6	84	40
P0220SB-MS	P02B XXXX	30	500	4	2.2	5	15	84	40
P0300SB-MS	P03B XXXX	40	500	4	2.2	5	25	80	40
P0640SB-MS	P06B XXXX	77	800	4	2.2	5	58	76	120
P0720SB-MS	P07B XXXX	88	800	4	2.2	5	65	76	120
P0900SB-MS	P09B XXXX	98	800	4	2.2	5	75	76	120
P1100SB-MS	P11B XXXX	130	800	4	2.2	5	90	72	120
P1300SB-MS	P13B XXXX	160	800	4	2.2	5	120	72	120
P1500SB-MS	P15B XXXX	180	800	4	2.2	5	140	68	120
P1800SB-MS	P18B XXXX	220	800	4	2.2	5	170	64	120
P2300SB-MS	P23B XXXX	260	800	4	2.2	5	190	60	120
P2600SB-MS	P26B XXXX	300	800	4	2.2	5	220	56	120
P3100SB-MS	P31B XXX	350	800	4	2.2	5	275	52	120
P3500SB-MS	P35B XXXX	400	800	4	2.2	5	320	48	120
P4500SB-MS	P45B XXXX	530	800	4	2.2	5	400	36	120

## Ratings and Characteristic Curves

(Ratings at 25°C ambient temperature unless otherwise specified).

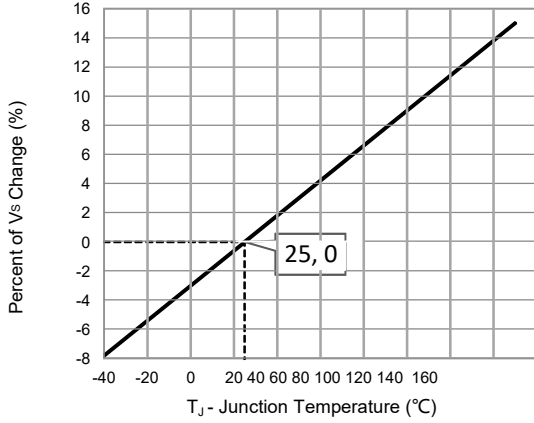


Fig. 1 - Peak Pulse Current Rating

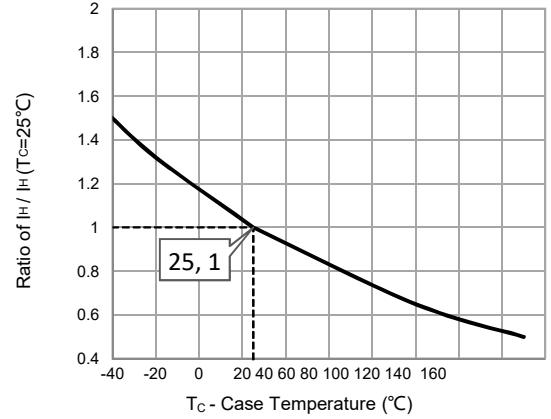


Fig. 2 - Normalized DC Holding Current vs. Case Temperature

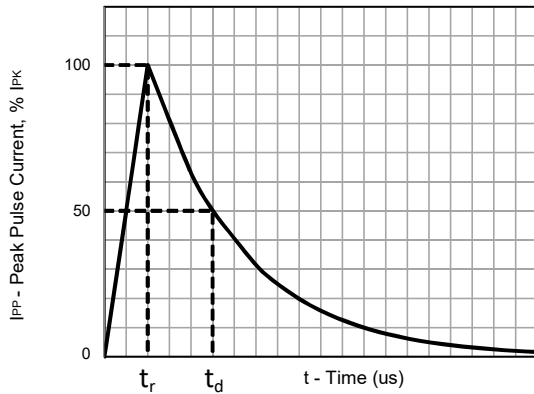


Fig. 3 - tr/td us Pulse Waveform

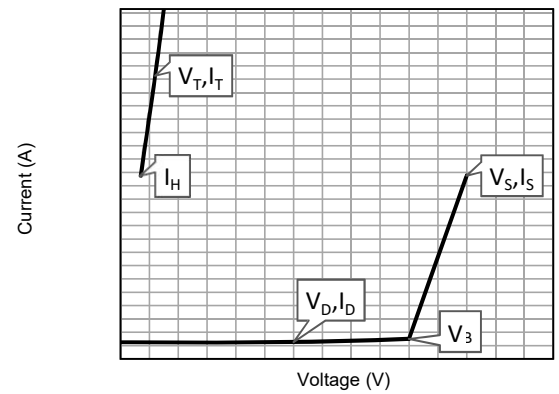


Fig. 4 - VI Curve

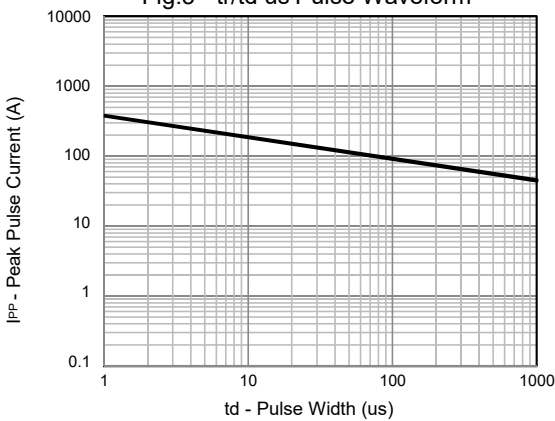


Fig. 5 - Peak Pulse Current Rating

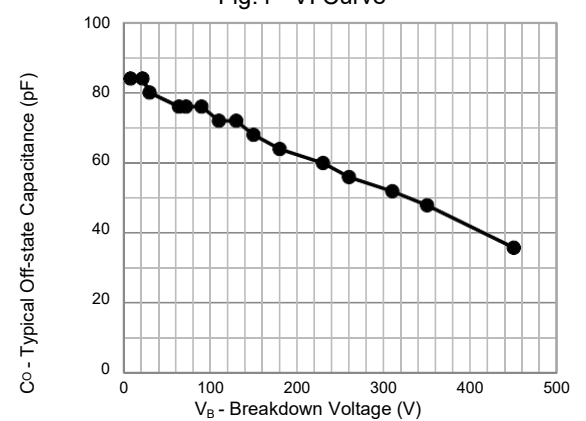
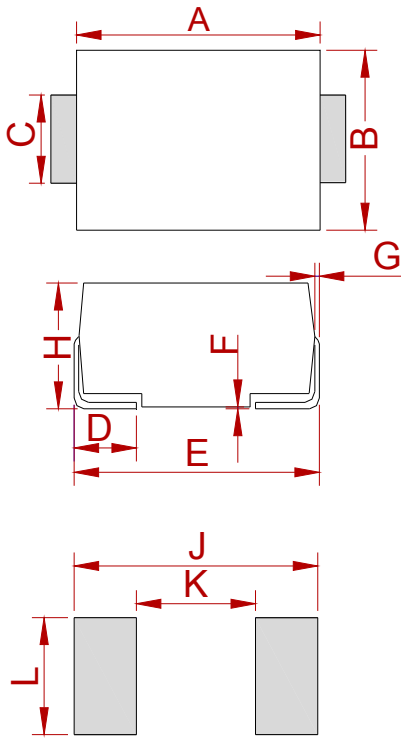


Fig. 6 - Typical Off-state Capacitance

**PACKAGE MECHANICAL DATA**



DO-214AA (SMB)

Ref.	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	4.25	4.75	0.167	0.187
B	3.30	3.94	0.130	0.155
C	1.85	2.21	0.073	0.087
D	0.76	1.52	0.030	0.060
E	5.08	5.59	0.200	0.220
F	0.051	0.203	0.002	0.008
G	0.15	0.31	0.006	0.012
H	2.11	2.44	0.083	0.096
J	6.80		0.270	
K		2.60		0.100
L	2.40		0.090	

**REEL SPECIFICATION**

P/N	PKG	QTY
PxxxxSB-MS	SMB	3000

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