

# MSKSEMI

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

Product data sheet



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	$V_{PP}$	6000	V	10/700us
Peak Pulse Current	$I_{PP}$	100	A	10/1000u s
Peak Pulse Current	$I_{PK}$	400	A	8/20us
Peak One-cycle Surge Current	$I_{TSM}$	30	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).

Part Number	Marking	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 MIN
P0080SC-MS	E-8C XXXX	25	500	4	2.2	5	6	105	40
P0220SC-MS	P02C XXXX	30	500	4	2.2	5	15	105	40
P0300SC-MS	P03C XXXX	40	500	4	2.2	5	25	100	40
P0640SC-MS	P06C XXXX	77	800	4	2.2	5	58	95	120
P0720SC-MS	P07C XXXX	88	800	4	2.2	5	65	95	120
P0900SC-MS	P09C XXXX	98	800	4	2.2	5	75	95	120
P1100SC-MS	P11C XXXX	130	800	4	2.2	5	90	90	120
P1300SC-MS	P13C XXXX	160	800	4	2.2	5	120	90	120
P1500SC-MS	P15C XXXX	180	800	4	2.2	5	140	85	120
P1800SC-MS	P18C XXXX	220	800	4	2.2	5	170	80	120
P2300SC-MS	P23B XXXX	260	800	4	2.2	5	190	75	120
P2600SC-MS	P26C XXXX	300	800	4	2.2	5	220	70	120
P3100SC-MS	P31C XXXX	350	800	4	2.2	5	275	65	120
P3500SC-MS	P35C XXXX	400	800	4	2.2	5	320	60	120
P4500SC-MS	P45C XXXX	550	800	4	2.2	5	400	45	120

## Ratings and Characteristic Curves

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

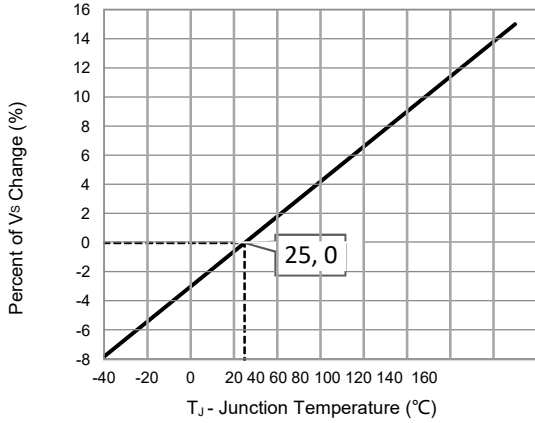


Fig. 1 - Peak Pulse Current Rating

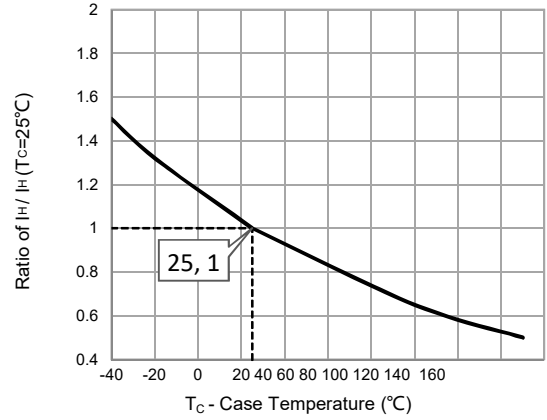


Fig. 2 - Normalized DC Holding Current vs. Case Temperature

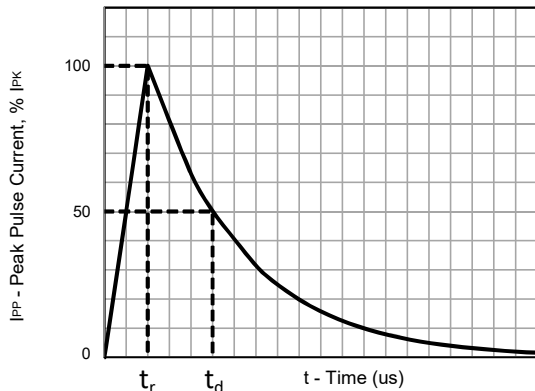


Fig. 3 - tr/td us Pulse Waveform

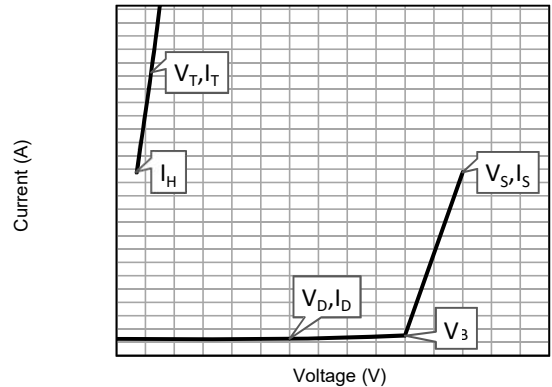


Fig. 4 - VI Curve

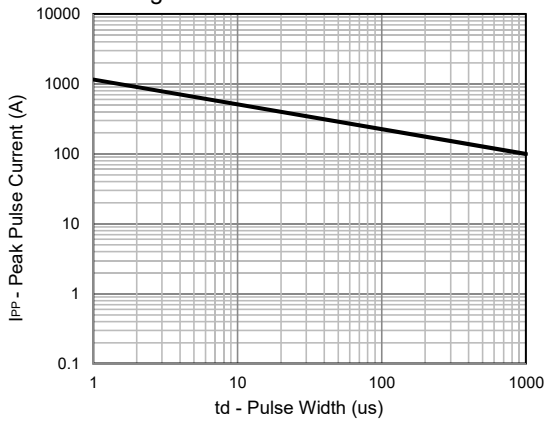


Fig. 5 - Peak Pulse Current Rating

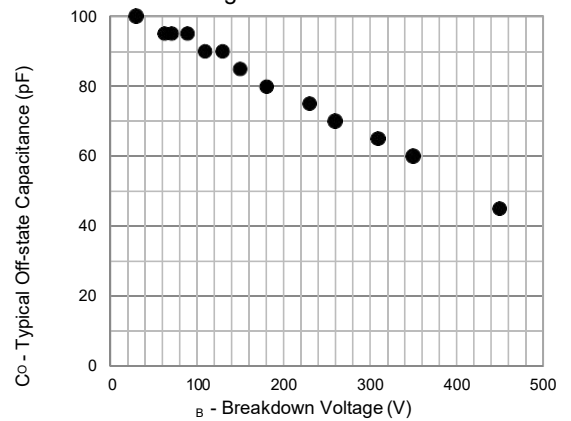
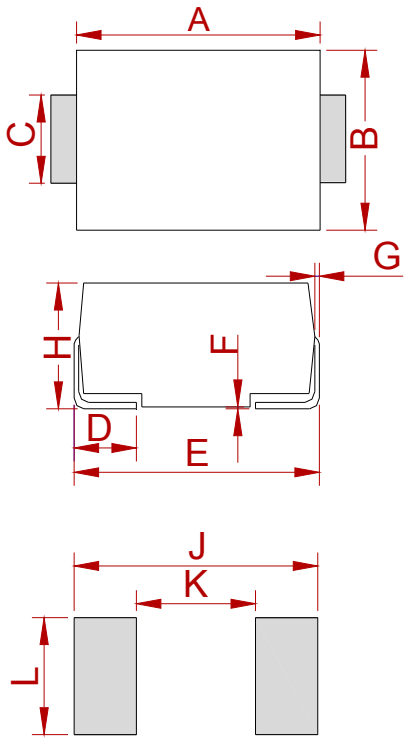


Fig. 6 - Typical Off-state Capacitance

**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
PxxxxSC-MS	SMB	3000

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