

Features

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

Applications

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

Dimensions and Pin Configuration

SMB



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	

Part Number	Marking	$V_S @ 100KV/S$ V MAX	I_{S_LMT} mA	$V_T @ I_T$ V MAX	I_T A	$I_D @ V_D$ uA MAX	V_D V	$C_O @ 1MHz, 2V_{DC}$ pF TYP	I_H mA TYP
P0080SB	P008B	25	500	4	2.2	5	6	84	40
P0220SB	P02B	30	500	4	2.2	5	15	84	40
P0300SB	P03B	40	500	4	2.2	5	25	80	40
P0640SB	P06B	77	800	4	2.2	5	58	76	120
P0720SB	P07B	88	800	4	2.2	5	65	76	120
P0900SB	P09B	98	800	4	2.2	5	75	76	120
P1100SB	P11B	130	800	4	2.2	5	90	72	120
P1300SB	P13B	160	800	4	2.2	5	120	72	120
P1500SB	P15B	180	800	4	2.2	5	140	68	120
P1800SB	P18B	220	800	4	2.2	5	170	64	120
P2300SB	P23B	260	800	4	2.2	5	190	60	120
P2600SB	P26B	300	800	4	2.2	5	220	56	120
P3100SB	P31B	350	800	4	2.2	5	275	52	120
P3500SB	P35B	400	800	4	2.2	5	320	48	120
P4500SB	P45B	530	800	4	2.2	5	400	36	120

Typical Performance Characteristics ($T_A=25^\circ\text{C}$ unless otherwise Specified)

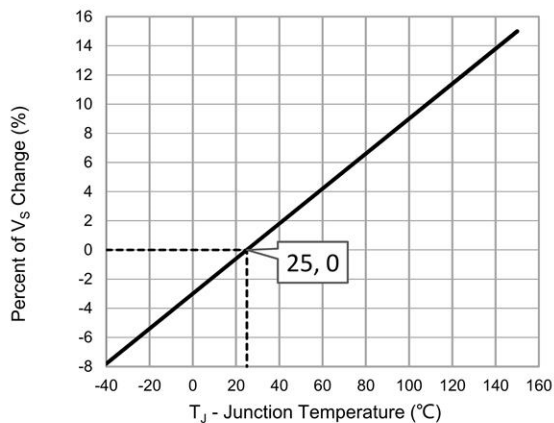


Fig.1 - Peak Pulse Current Rating

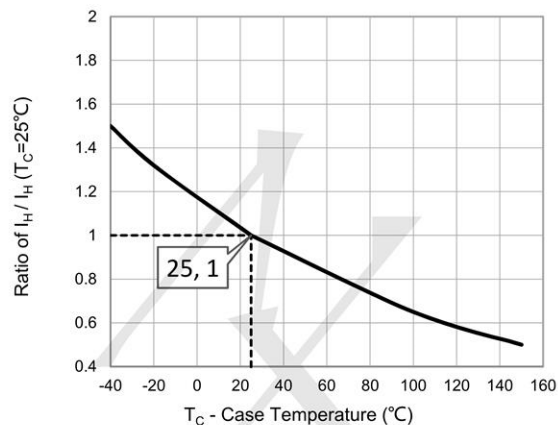


Fig.2 - Normalized DC Holding Current vs. Case Temperature

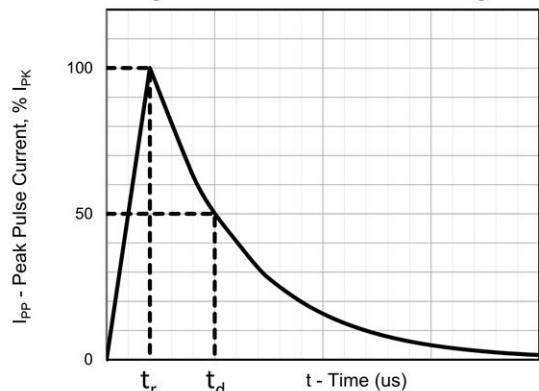


Fig.3 - tr/td us Pulse Waveform

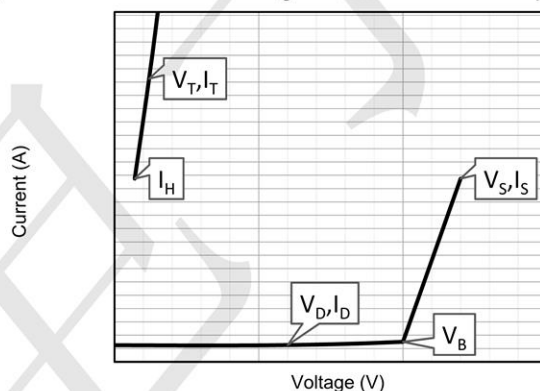


Fig.4 - VI Curve

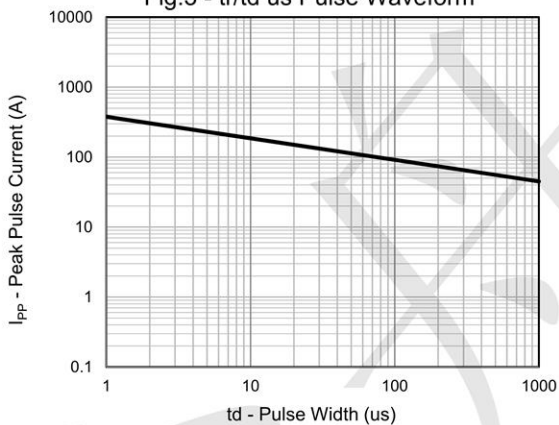


Fig.5 - Peak Pulse Current Rating

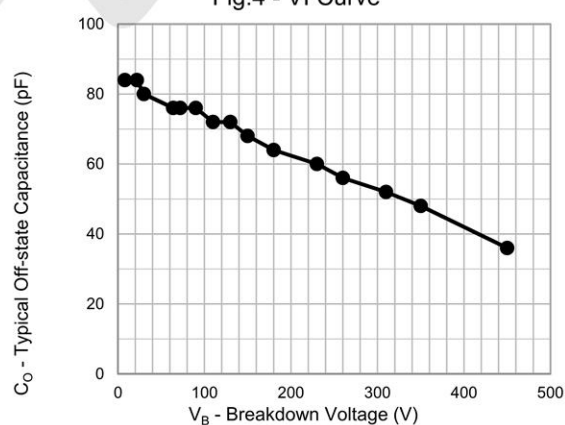


Fig.6 - Typical Off-state Capacitance

Package Outline Dimensions: SMB(DO-214AA)

Dim	Millimeters		Inches	
	Min	Max	Min	Max
L	4.4	4.6	0.173	0.181
D	3.5	3.7	0.138	0.146
D1	1.9	2.1	0.075	0.083
T	5.1	5.48	0.201	0.216
T1	1.0	1.6	0.039	0.063
d	-	0.2	-	0.008
H	2.2	2.45	0.087	0.096
H1	2.15	2.35	0.085	0.093