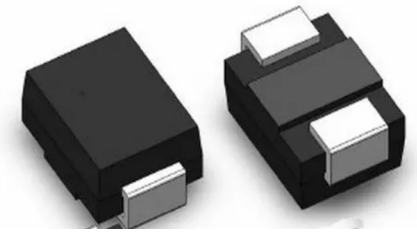
Features

- For surface mounted applications
- Low-profile package
- Ideal for automated placement
- Available in Unidirectional and Bidirectional
- High peak pulse current at 10/1000μs waveform.
- Low incremental surge resistance, excellent clamping capability
- Very fast response time
- High temperature soldering guaranteed: 260 °C/10 s at terminals
- IEC61000-4-2 (ESD) ±30kV (air), ±30kV (contact).



SMB
(JEDEC DO-214AA)

Bidirectional

Typical Applications

Use in sensitive electronics protection against voltage transients induced by inductive load switching and lighting on ICs, MOSFET, signal lines of sensor units for consumer, computer, industrial, telecommunication.

ABSOLUTE MAXIMUM RATINGS (T_A=25℃, RH=45%-75%, unless otherwise noted)

Parameter	Symbol	Value	Unit
Storage temperature range	T_{STG}	-55 to +150	℃
Operating junction temperature range	T_J	-55 to +150	℃
Steady state power dissipation at T_L=75℃	$P_{M(AV)}$	5.0	W
Peak pulse current at 10/1000μs waveform	P_{PP}	600	W

Order information

Model	Marking	Package	shipping
SMB06J0FB	**AK**	**SMB/DO-214AA**	**3000/Tape&Reel**

Electrical characteristic(T=25℃，unless otherwise specified)

Parameter	Symbol	Conditions	Min.	TYP.	Max.	Units
Reverse stand-off voltage	V_{RWM}				±6.0	V
Reverse leakage current	I_R	V_{RWM}=6.0V			5.0	uA
Reveres breakdown voltage	V_{BR}	I_T=10mA	6.6		7.9	V
Clamping voltage	V_C	I_{PP}=53.6A (10/1000us)			11.2	V

Fig.1 TVS Transients Clamping Waveform

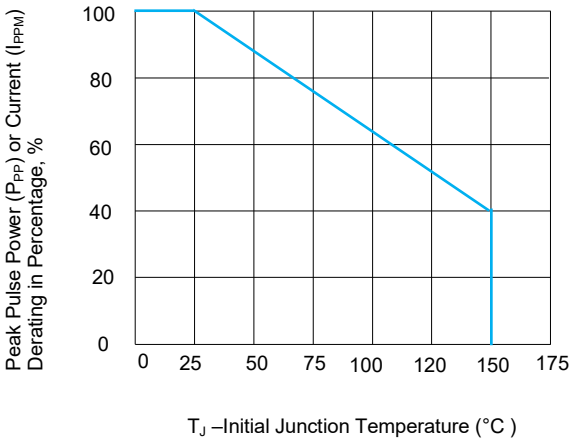


Fig.2 Peak Pulse Power Rating Curve

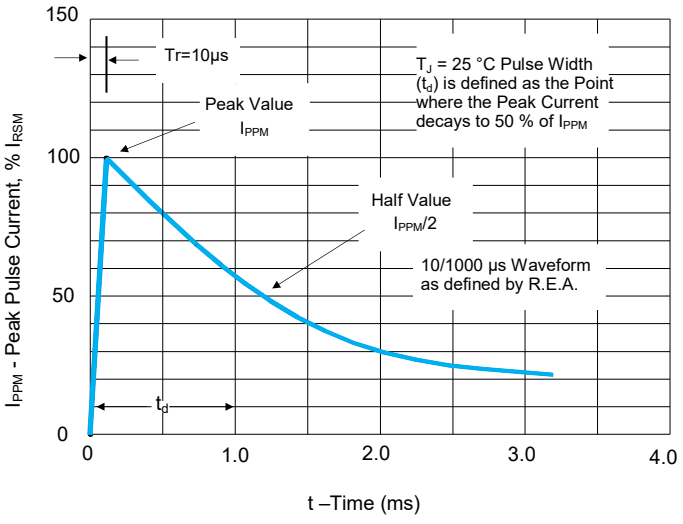


Fig.3 Peak Pulse Power Derating Curve

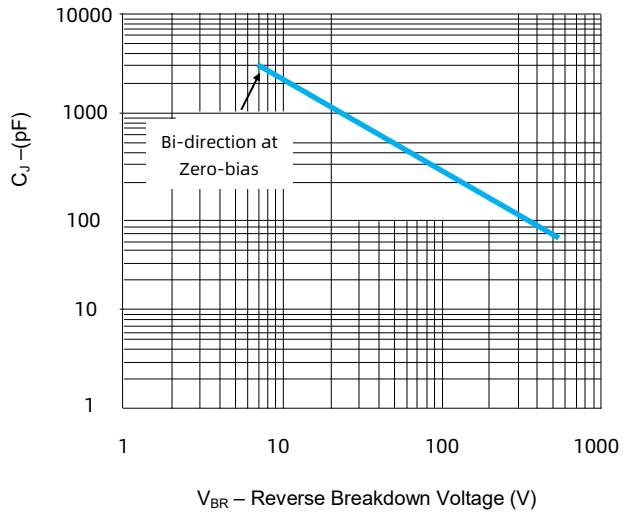


Fig.4 Pulse Waveform

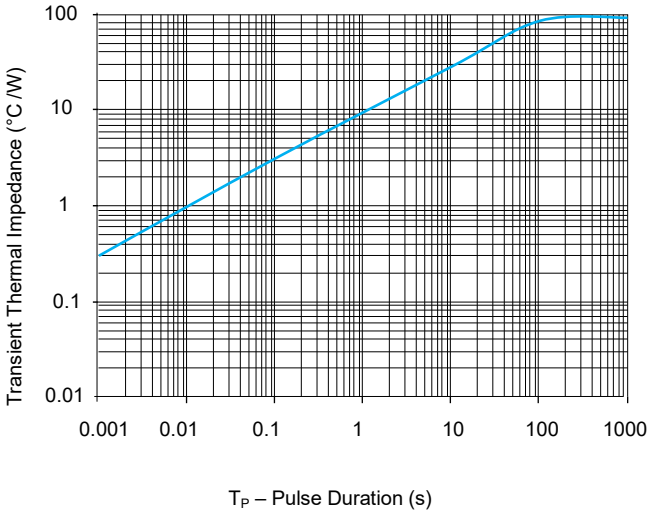


Fig.5 Typical Junction Capacitance

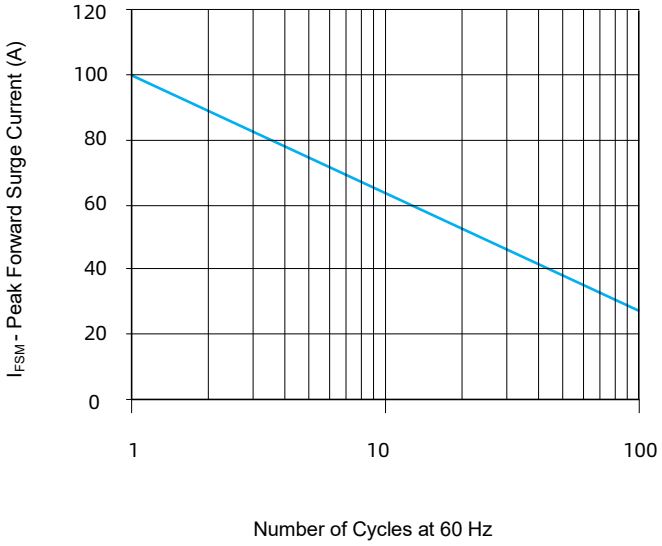
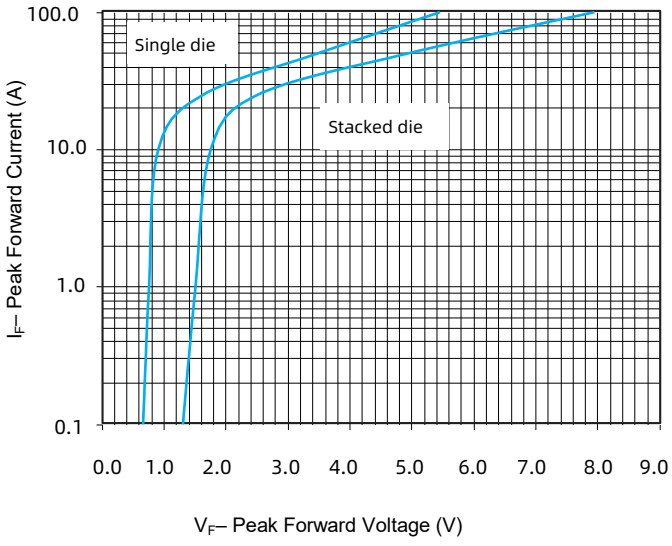
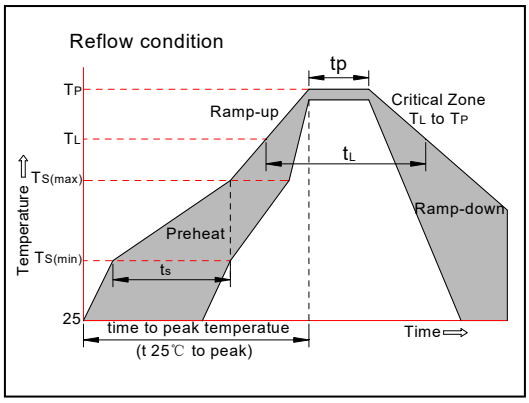


Fig.6 Typical Transient Thermal Impedance

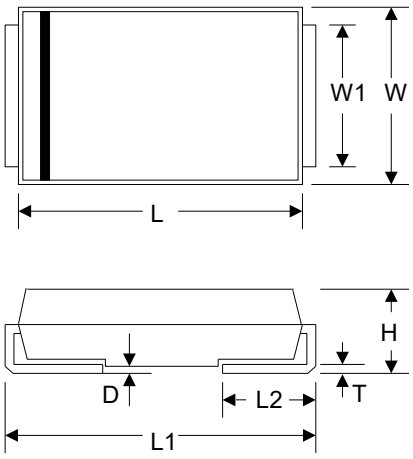


SOLDERING PARAMETERS

Reflow Condition		Pb-Free assembly (see figure at right)
Pre Heat	-Temperature Min ($T_{s(min)}$)	+150℃
	-Temperature Max($T_{s(max)}$)	+200℃
	-Time (Min to Max) (ts)	60-180 secs.
Average ramp up rate (Liquidus Temp (T_L)to peak)		3℃/sec. Max
$T_{s(max)}$ to T_L - Ramp-up Rate		3℃/sec. Max
Reflow	-Temperature(T_L)(Liquidus)	+217℃
	-Temperature(t_L)	60-150 secs.
Peak Temp (T_p)		+260(+0/-5)℃
Time within 5℃of actual Peak Temp (t_p)		20-40secs.
Ramp-down Rate		6℃/sec. Max
Time 25℃ to Peak Temp (T_P)		8 min. Max
Do not exceed		+260℃

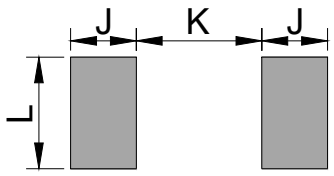


■ Outline Dimensions



Symbol	Millimeters		Inches	
	Min.	Max.	Min.	Max.
L	4.060	4.750	0.160	0.187
W	3.300	3.940	0.130	0.155
W1	1.930	2.200	0.076	0.086
H	1.990	2.610	0.078	0.103
T	0.152	0.305	0.006	0.012
L1	5.210	5.590	0.205	0.220
L2	0.760	1.520	0.030	0.060
D	-	0.203	-	0.008

■ Suggested pad layout



Symbol	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	-	2.740	-	0.107
B	2.160	-	0.085	-
C	2.160	-	0.085	-
E	2.260	-	0.089	-