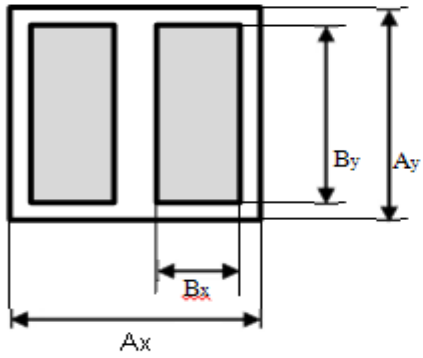
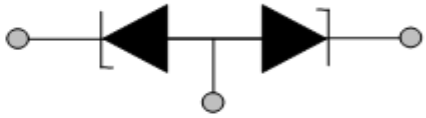
Wafer Spec Sheet Rev.5. December 2014 **SMB-05L12/ SMB-05L13/ SMB-05L14**

Chip Bi-directional TVS diode





Schematic and pinning diagram.

Mechanical date: Ax=Ay=380um
Bx=110um, By=260um

Chip thickness: a) 138+/-12um for SMB05L12;
b) 230+/-20um for SMB05L13;
c) 460+/-20um for SMB05L14;

Scribe Line width - 60um.

Top Metal: Al metallization for wire bonding

Back side - Anode: a)Ti-Ni-Ag for soldering for SMB05L12, SMB05L13
b) without metallization for SMB05L14

Probing: a) sampling testing: no bad dice inking;
guaranteed good dice quantity≥95%.

b) 100% testing (if agreed with customer): wafer mapping data, no bad dice inking

Limiting values

Parameter	Symbol	Conditions	Value	Unit
Reverse Stand-off voltage	V_{RWM}	I_R=1mA	4,5	V
Peak Pulse Power	P_{pp}	t_p=8/20us	73*	W
Peak Pulse Current	I_{pp}	t_p=8/20us	6,7*	A
Electrostatic Discharge	V_{ESD}	IEC 61000-4-2, level 4.	>8 (Contact); >15 (Air).	kV
Max.junction temperature	T_j	-	+150	ºC

Characteristics (Tj=25ºC)

SYMBOL	PARAMETER	CONDITIONS	MIN.	TYP.	MAX.	UNIT
V_{BR}	Breakdown voltage	I_R=5mA	6,5	6,8	7,1	V
I_R	Reverse leakage current	V_R=5,0V	-	-	0,9	uA
V_{CL}	Clamping Voltage	I_{pp}=1.0A, t_p=8/20us I_{pp}=6.7A, t_p=8/20us	-	-	7,9* 11,9*	V
C_J	Diode capacitance	V_R=0 V, f =1MHz	-		55	pF

*For Device testing