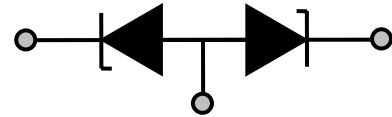
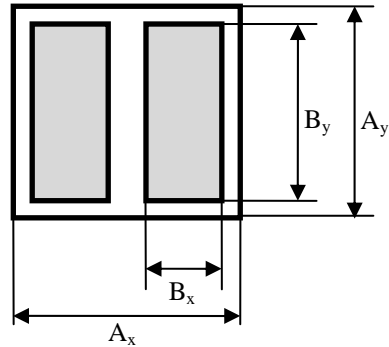


Rev.1. March 2010.

SMB-05L12/ SMB-05L13

Chip Bi-directional TVS diode.


Mechanical date: $A_x=A_y=380\mu\text{m}$
 $B_x=110\mu\text{m}, B_y=260\mu\text{m}$
Chip thickness: a) $138\pm 12\mu\text{m}$ for SMB05L12;

 b) $230\pm 20\mu\text{m}$ for SMB05L13

Scribe Line width - $60\mu\text{m}$.

Top Metal: Al metallization for wire bonding

Back side - Anode: Ti-Ni-Ag for soldering.

Schematic and pinning diagram.

Limiting values

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

Characteristics ($T_j=25^\circ\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	MIN.	TYP.	MAX.	UNIT
V_{BR}	Breakdown voltage	$I_R=5\text{mA}$	6,5	6,8	7,1	V
I_R	Reverse leakage current	$V_R=5,0\text{V}$	-	-	0,9	μA
V_{CL}	Clamping Voltage	$I_{pp}=1.0\text{A}, t_p=8/20\mu\text{s}$ $I_{pp}=12\text{A}, t_p=8/20\mu\text{s}$	-	-	7,9* 11,9*	V
C_j	Diode capacitance	$V_R=0\text{V}, f=1\text{MHz}$	-	-	45	pF

*- For Device testing