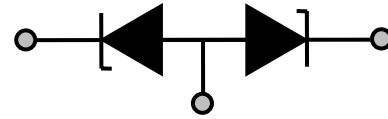
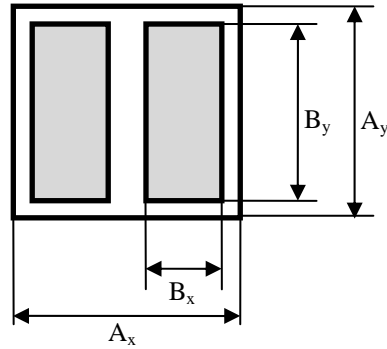


Rev.1. March 2010.

## SMB-05L1

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:**  $230\pm 20\mu\text{m}$

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

**Top Metal:** a) Al metallization for wire bond  
 b) Al-Ni-Ag for soldering.

**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	$P_{pp}$	$t_p=8/20\mu\text{s}$	80*	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	$\mu\text{A}$
$V_{CL}$	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* 12,0*	V
$C_j$	Diode capacitance	$V_R=0\text{V}$ , $f=1\text{MHz}$	-	-	45	pF

\*- For Device testing