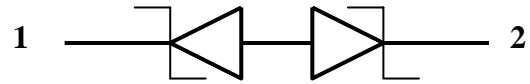
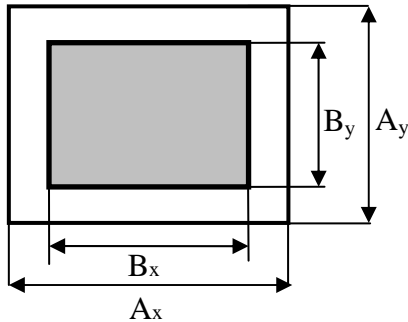


## SMB-05L21, SMB-05L22

Chip Bi - directional TVS diode.



**Mechanical date:**  $A_x=430\mu\text{m}$ ,  $A_y=380\mu\text{m}$ .

$B_x=230\mu\text{m}$ ,  $B_y=180\mu\text{m}$

**Chip thickness:** a)  $138\pm 12\mu\text{m}$  – for SMB-05L21;

b)  $230\pm 20\mu\text{m}$  – for SMB-05L22.

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

**Top Metal:** Al - for wire bonding,  $d=2.2\pm 0.2\mu\text{m}$ .

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

**Top Side** - pin 1, **Back Side** - pin 2.

**Schematic and pinning diagram.**

### Limiting values

Parameter	Symbol	Conditions	Value	Unit
Reverse Stand-off voltage	$V_{RWM}$	-	5	V
Peak Pulse Power	$P_{pp}$	$t_p=8/20\mu\text{s}$	130*	W
Peak Pulse Current	$I_{pp}$	$t_p=8/20\mu\text{s}$	12*	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. Pin 1 to 2.	$I_R=1\text{mA}$	5.6	-	9.4	V
$I_R$	Reverse leakage current.	$V=\pm 5\text{V}$	-	-	90	nA
$V_{CL}$	Clamping Voltage	$I_{pp}=1\text{A}$ , $t_p=8/20\mu\text{s}$ $I_{pp}=12\text{A}$ , $t_p=8/20\mu\text{s}$	-	-	10* 14*	V
$C_J$	Diode capacitance. Pin 1 to 2.	$V_R=0\text{V}$ , $f=1\text{MHz}$	-	24	30	pF

\*- For Device testing.