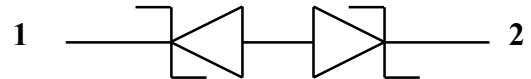
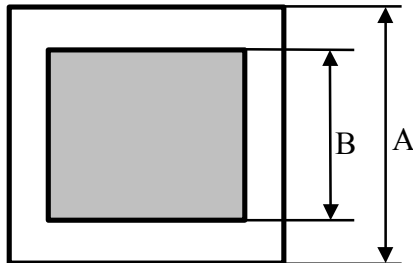


## SMB-05L46

Chip Bi - directional TVS diode in wafer form, 4 inch.



**Mechanical data:**  $A_x=A_y=280\mu\text{m}$ ,  $B_x= B_y= 100\mu\text{m}$

**Chip thickness:**  $200\pm 10\mu\text{m}$

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

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

**Back side:** not grinded, without metallization

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

**Sampling testing:** no bad dice inking;  
guaranteed good dice quantity  $\geq 95\%$ .

**Schematic and pinning diagram.**

### Limiting values

Parameter	Symbol	Conditions	Value	Unit
Reverse Stand-off voltage	$V_{RWM}$	-	5	V
Peak Pulse Power	$P_{pp}$	$t_p=8/20\mu\text{s}$	45*	W
Peak Pulse Current	$I_{pp}$	$t_p=8/20\mu\text{s}$	3,5*	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.& Pin 2 to 1	$I_R=50\text{mA}$	5,3	-	7,5	V
$I_R$	Reverse leakage current.	$V=\pm 5\text{V}$		-	90	nA
$V_{CL}$	Clamping Voltage	$I_{pp}=1\text{A}$ , $t_p=8/20\mu\text{s}$ $I_{pp}=3.5\text{A}$ , $t_p=8/20\mu\text{s}$	-	-	9.0* 12.5*	V
$C_J$	Diode capacitance. Pin 1 to 2.	$V_R=0\text{V}$ , $f=1\text{MHz}$	-	5.0	6.0	pF

\*For Device testing.