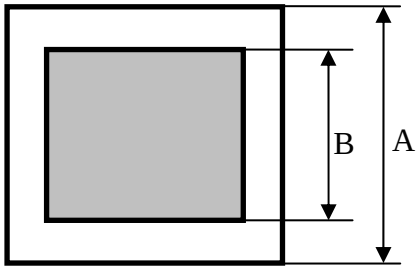
VSP-MIKRON

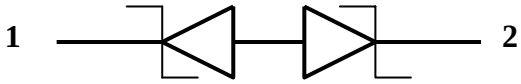
RoHS

Rev.1. March 2010.

SMB-05L41, SMB-05L42

Chip Bi - directional TVS diode.





Schematic and pinning diagram.

Mechanical date: A_x=A_y=280um, B_x= B_y= 100um
Chip thickness: a) 138+/-12um – for SMB-05L41;
b) 470+/-20um – for SMB-05L42.
Scribe Line width - 60um.
Top Metal: Al - for wire bonding, d=2.2+/-0.2 um.
Back side: a) Ti-Ni-Ag for Soldering – for SMB-05L41;
b) not to make grinding, without metallization – for SMB-05L42.
Top Side - pin 1, **Back Side** - pin 2.

Limiting values

Parameter	Symbol	Conditions	Value	Unit
Reverse Stand-off voltage	V_{RWM}	-	5	V
Peak Pulse Power	P_{pp}	t_p=8/20us	45*	W
Peak Pulse Current	I_{pp}	t_p=8/20us	3,5*	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. Pin 1 to 2.	I_R=50mA	5.3	-	7.5	V
I_R	Reverse leakage current.	V=±5V		-	90	nA
V_{CL}	Clamping Voltage	I_{pp}=1A, t_p=8/20us I_{pp}=3.5A, t_p=8/20us	-	-	9.0* 12.5*	V
C_J	Diode capacitance. Pin 1 to 2.	V_R=0 V, f =1MHz	-	5.0	6.0	pF

*- For Device testing.