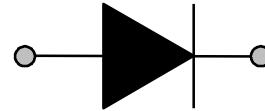
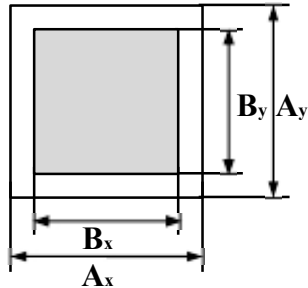


Rev.2. May 2011.

## SM-12P1

Chip TVS diode.



**Mechanical date:**  $A_x=610\mu\text{m}$ ,  $A_y=430\mu\text{m}$   
 $B_x=465\mu\text{m}$ ,  $B_y=285\mu\text{m}$

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

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

**Top Metal:** Al metallization for wire bond

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

**Schematic and pinning diagram.**

### Limiting values

Parameter	Symbol	Conditions	Value	Unit
Reverse Stand-off voltage	$V_{RWM}$	-	12	V
Peak Pulse Power	$P_{pp}$	$t_p=8/20\mu\text{s}$	500*	W
Peak Pulse Current	$I_{pp}$	$t_p=8/20\mu\text{s}$	16,0*	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	$I_R=1\text{mA}$	12,7	-	17,0	V
$I_R$	Reverse leakage current	$V_R=12,0\text{V}$	-	-	0,9	$\mu\text{A}$
$V_{CL}$	Clamping Voltage	$I_{pp}=1.0\text{A}$ , $t_p=8/20\mu\text{s}$ $I_{pp}=12\text{A}$ , $t_p=8/20\mu\text{s}$	-	-	22,0* 27,0*	V
$C_j$	Diode capacitance	$V_R=0\text{V}$ , $f=1\text{MHz}$	-		200	pF

\*- For Device testing