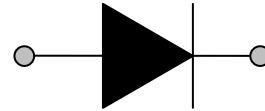
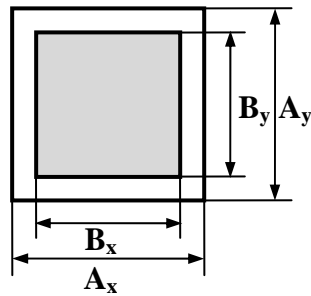


## SM-12N

Chip TVS diode.



**Mechanical date:**  $A_x=A_y=580\mu\text{m}$   
 $B_x=B_y=420\mu\text{m}$

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

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

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

**Back side – Cathode:** 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	$P_{pp}$	$t_p=8/20\mu\text{s}$	300*	W
Peak Pulse Current	$I_{pp}$	$t_p=8/20\mu\text{s}$	12.5*	A
Max.junction temperature	$T_j$	-	+125	°C

### Characteristics ( $T_j=25^\circ\text{C}$ )

SYMBOL	PARAMETER	CONDITIONS	MIN.	TYP.	MAX.	UNIT
$V_{BR}$	Breakdown voltage	$I_R=1\text{mA}$	13.5	-	17.0	V
$I_R$	Reverse leakage current	$V_R=12,0\text{V}$	-	-	0.9	$\mu\text{A}$
$V_{CL}$	Clamping Voltage	$I_{pp}=1.0\text{A}$ , $t_p=8/20\mu\text{s}$ $I_{pp}=12\text{A}$ , $t_p=8/20\mu\text{s}$	-	-	19.0* 25.0*	V
$C_J$	Diode capacitance	$V_R=0\text{ V}$ , $f=1\text{MHz}$	-		150	pF

\*- For Device testing