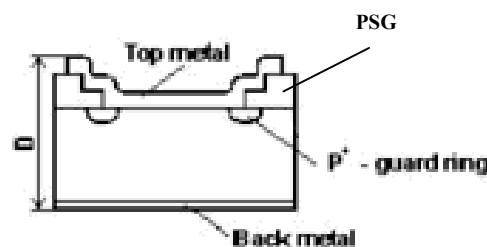
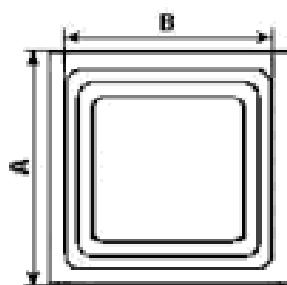


**SCHOTTKY DIODES. KDS-01045D.**  
PRELIMINARY

RoHS

Apr.2013

|  VSP-MIKRON  | <b>1A/45V. Die Size-39mil.</b> |                  |                    |                 |
|---|--------------------------------|------------------|--------------------|-----------------|
| <b>Electrical Characteristics</b>   | <b>Symbol</b>                  | <b>Unit</b>      | <b>Spec. limit</b> | <b>Die Sort</b> |
| Breakdown Voltage<br>@ $I_R=10\text{mA}$  | $V_B$                          | V                | 45                 | 47              |
| Average Rectified Forward Current   | $I_{F(AV)}$                    | A                | 1,0                | -               |
| DC Forward Voltage<br>@ $25^\circ\text{C}$ , $I_F=1,0\text{A}$  | $V_F$                          | V                | 0,4                | 0,38            |
| Maximum Reverse Current<br>@ $25^\circ\text{C}$ , $V_R=47\text{V}$<br>@ $25^\circ\text{C}$ , $V_R=45\text{V}$<br>@ $100^\circ\text{C}$ , $V_R=45\text{V}$ | $I_R$                          | MA               | -                  | 0,50            |
| Peak Forward Surge Current 8,3ms<br>single half sine-wave superimposed on<br>rated load (JEDEC METHOD)  | $I_{FSM}$                      | A                | 45                 | -               |
| Peak Repetitive Reverse Surge Current<br>@ $2,0\mu\text{s}$ , $f=1\text{kHz.}$ , $T_J<150^\circ\text{C.}$   | $I_{RRM}$                      | A                | 1,0                |                 |
| Electrostatic Discharge Voltage.<br>JEDEC Method. ESD HBM. Contact.   | ESD                            | kV               | $\pm 8$ (contact)  |                 |
| Voltage Rate of Change  | $dV/dt$                        | V/ $\mu\text{S}$ | 10.000             |                 |
| Operating Junction Temperature  | $T_J$                          | °C               | 150                |                 |



| <b>DIM</b> | <b>ITEM</b>       | <b>µm</b> |
|------------|-------------------|-----------|
| $A_x$      | Die Size          | 1000      |
| $A_y$      |                   | 1000      |
| $B_x$      | Top Metal Size    | 860       |
| $B_y$      |                   | 860       |
| D          | Thickness         | 300max.   |
|            | Scribe line Width | 80        |

*Top metal:* a) Al – for Wire Bonding;  
b) Al-Ni-Ag – for Soldering.  
*Backside metal:* Ti-Ni-Ag.