

**VSP-MIKRON****Soft Fast Recovery Diode** $V_{RRM} = 1200V$ $I_F = 50A$ **KD50120FU**

Die Size:

6.2 x 6.2mm

Preliminary Specification, Rev 4, Dec. 2013

Ultra low losses

Passivation: Silicon Oxide

Maximum rated values:

| Parameter | Symbol | min | max | Unit |
|----------------------------------|-----------|-----|------|------|
| Repetitive peak reverse voltage | V_{RRM} | - | 1200 | V |
| Continuous forward current | I_F | - | 50 | A |
| Repetitive peak forward current* | I_{FRM} | - | 100 | A |
| Junction temperature | T_{vj} | - | 150 | °C |

* - Limited by $T_{vj\ max}$ Diode Characteristics values:

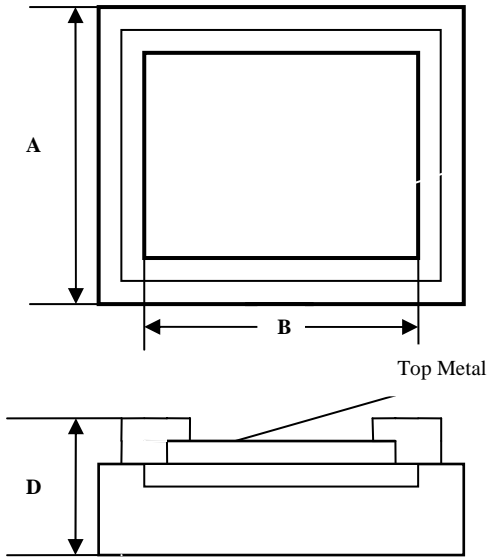
| Parameter | Symbol | Conditions | min | typ | max | Unit |
|-------------------------------|-----------|---|-----|-----|------------|----------|
| Continuous forward voltage | V_F | $I_F=50A, T_{vj}= 25^\circ C$ | | 1,8 | 2,0 | V |
| Continuous reverse current | I_R | $V_R=1200V \begin{matrix} T_{vj}= 25^\circ C \\ T_{vj}= 125^\circ C \end{matrix}$ | | | 20 | uA mA |
| Peak reverse recovery current | I_{RRM} | $I_F=50A, V_R=700V, \begin{matrix} di_F/dt=200A/uS, \\ T_{vj}= 25^\circ C \end{matrix}$ | | tdb | | A |
| Recovered charge | Q_{rr} | | | tdb | | μC |
| Reverse Recovery Time | t_{rr} | | | tdb | | nS |
| Reverse Recovery Time | t_{rr} | $I_F=1A, V_R=30V, \begin{matrix} di_F/dt=200A/uS. \end{matrix}$ | | 65 | | nS |

**- To be determined

Mechanical properties:

Top metal: **Al-Ti** – for Wire Bonding

Backside metal: **Ti-Ni-Ag** – for Soldering



| DIM | ITEM | µm |
|----------------------------------|-----------|--------------|
| A _x A _y | Die Size | 6200 6200 |
| D | Thickness | 350 max |
| Scribe Line Width | | 60 |