

**VSP-MIKRON****Soft Fast Recovery Diode** $V_{RRM} = 1200V$ $I_F = 25A$ **KD25120F**

Die Size:

5.5 x 4.5mm

Preliminary Specification, Rev 2, May 2012

Ultra low losses*Passivation:* Silicon Oxide plus PolyimideMaximum rated values:

| Parameter | Symbol | min | max | Unit |
|----------------------------------|-----------|-----|------|------|
| Repetitive peak reverse voltage | V_{RRM} | - | 1200 | V |
| Continuous forward current | I_F | - | 25 | A |
| Repetitive peak forward current* | I_{FRM} | - | 50 | A |
| Junction temperature | T_{vj} | - | 150 | °C |

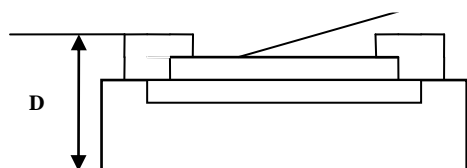
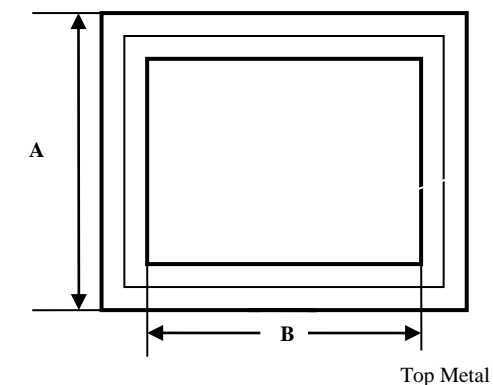
* - Limited by $T_{vj\ max}$ Diode Characteristics values:

| Parameter | Symbol | Conditions | min | typ | max | Unit |
|-------------------------------|-----------|--|-----|-----|-----|---------|
| Continuous forward voltage | V_F | $I_F=25A, T_{vj}= 25^\circ C$ | | 2.2 | | V |
| Continuous reverse current | I_R | $V_R=1200V \quad T_{vj}= 25^\circ C$ | | | 100 | uA |
| | | $T_{vj}= 125^\circ C$ | | 1.5 | | mA |
| Peak reverse recovery current | I_{RRM} | $I_F=25A, V_R=700V,$ $dI_F/dt=200A/uS,$ $T_{vj}= 25^\circ C$ | | 25 | | A |
| Recovered charge | Q_{rr} | | | 2.5 | | μC |
| Reverse Recovery Time | t_{rr} | | | | 190 | |
| Reverse Recovery Time | t_{rr} | $I_F=1A, V_R=30V,$ $dI_F/dt=200A/uS.$ | | 50 | | nS |

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 | 5500 4500 |
| D | Thickness | 350 max |
| Scribe Line Width | | 60 |