



VSP-MIKRON

 $V_{RRM}=1700V$ $I_F = 50A$

Diode-Die

KD50170F

Die Size-7.54 x 7.54MM.

Ultra low losses

Preliminary

Passivation : Silicon Oxide

Maximum rated values

| Parameter | Symbol | Unit | min | max |
|----------------------------------|-----------|------|-----|------|
| Repetitive peak reverse voltage | V_{RRM} | V | - | 1700 |
| Continuous forward current | I_F | A | - | 50 |
| Repetitive peak forward current* | I_{FRM} | A | - | 100 |
| Junction temperature | T_{vj} | °C | - | 150 |

*Limited by $T_{vj \text{ max}}$

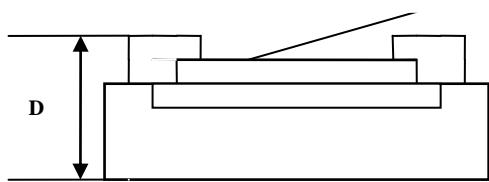
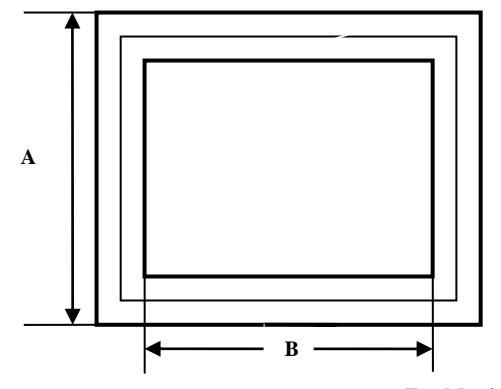
Diode Characteristics values

| Parameter | Symbol | Conditions | min | typ | max | Unit |
|-------------------------------|-----------|--|-----|-----|-----|-------|
| Continuous forward voltage | V_F | $I_F=50A, T_{vj} = 25^\circ C$ | | 2.4 | | V |
| Continuous reverse current | I_R | $V_R=1700V$ $\frac{T_{vj}= 25^\circ C}{T_{vj}= 125^\circ C}$ | | 100 | 2.0 | uA mA |
| Peak reverse recovery current | I_{RRM} | $I_F=50A, V_R=700V,$ $dI_F/dt=200A/uS,$ $T_{vj}= 25^\circ C$ | tbd | | | A |
| Recovered charge | Q_{rr} | | tbd | | | μC |
| Reverse Recovery Time | t_{rr} | | tbd | | | nS |
| Reverse Recovery Time | t_{rr} | $I_F=1A, V_R=30V,$ $dI_F/dt=200A/uS.$ | 100 | 120 | | 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 | 7540 7540 |
| D | Thickness | 460max. |
| Scribe line Width | | 60 |



www.vsp-mikron.com