

### Features:

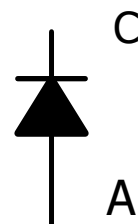
- Emitter injection control technology
- Soft, fast switching
- Low reverse recovery charge
- Small and positive temperature coefficient

### Recommended for:

Low / medium power modules

### Applications:

Low / medium power drives



### Mechanical parameters

|                                  |              |           |                 |
|----------------------------------|--------------|-----------|-----------------|
| Die size (include scribe lane)   | L x W        | 3.56×6.23 | mm <sup>2</sup> |
| Anode pad size                   | L x W        | 2.40×5.07 | mm <sup>2</sup> |
| Scribe lane                      |              | 60        | um              |
| Silicon thickness                |              | 110       | um              |
| Wafer size                       |              | 200       | mm              |
| Maximum possible chips per wafer |              | 1242      |                 |
| Passivation frontside            |              | Polyimide |                 |
| Pad Metallization                | AlSiCu       | 4         | um              |
| Backside Metallization           | Ti / Ni / Ag | 1.3       | um              |

### Maximum Ratings

| Parameters                                                         | Symbol       | Value           | Unit |
|--------------------------------------------------------------------|--------------|-----------------|------|
| Repetitive peak reverse voltage                                    | $V_{RRM}$    | 1200            | V    |
| Continuous forward current, limited by $T_{vj\ max}^2$             | $I_F$        | 50 <sup>1</sup> | A    |
| Maximum repetitive forward current, $t_p$ limited by $T_{vj\ max}$ | $I_{FRM}$    | 100             | A    |
| Operating junction temperature                                     | $T_{vj\ op}$ | -40~175         | °C   |
| Storage temperature                                                | $T_{stg}$    | -40~150         | °C   |

### Static Characteristic (T<sub>j</sub>=25°C, unless otherwise noted)

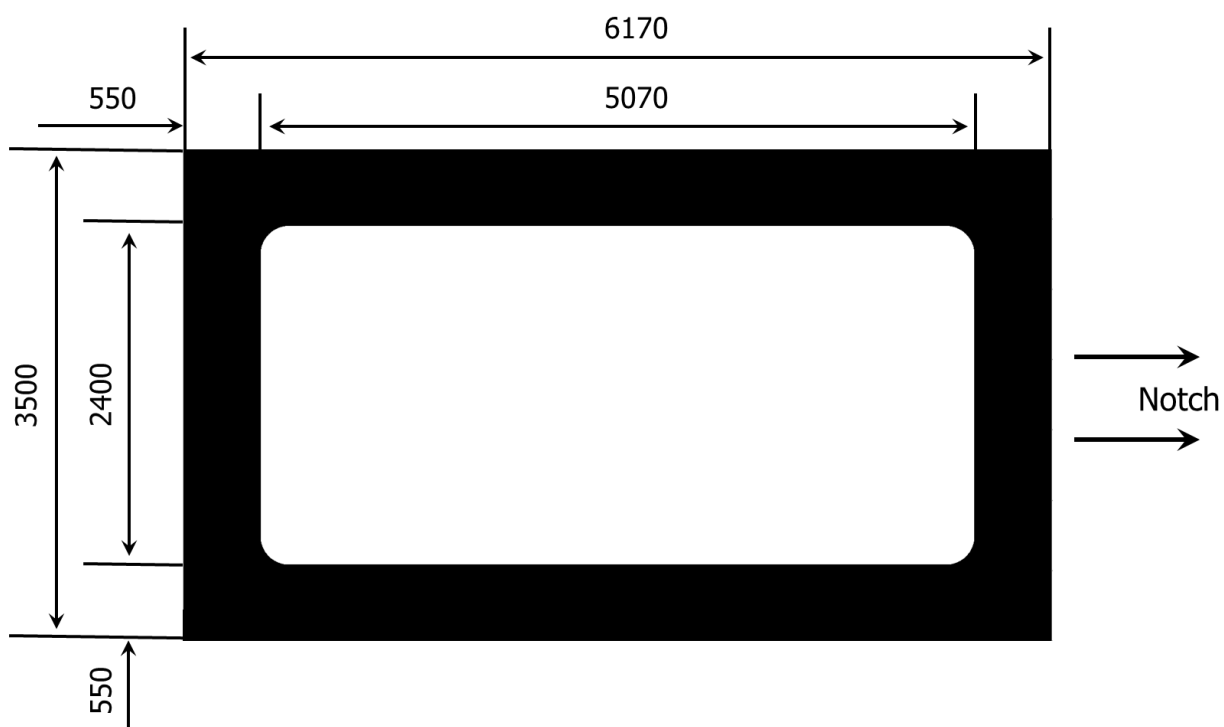
| Parameter                       | Symbol   | Conditions  | Min. | Typ. | Max. | Unit |
|---------------------------------|----------|-------------|------|------|------|------|
| Cathode-Anode breakdown voltage | $V_{BR}$ | $I_R=1mA$   | 1200 | -    | -    | V    |
| Diode forward voltage           | $V_F$    | $I_F=25A$   | 1.10 | 1.36 | 1.65 | V    |
| Reverse leakage                 | $I_R$    | $V_R=1200V$ | -    | -    | 10   | μA   |

### Electrical Characteristic <sup>2</sup>

| Parameter             | Symbol | Conditions | Min. | Typ. | Max. | Unit |
|-----------------------|--------|------------|------|------|------|------|
| Diode forward voltage | $V_F$  | $I_F=50A$  | -    | 1.65 | -    | V    |
|                       |        |            | -    | 1.75 | -    | V    |

<sup>1</sup> Depending on thermal properties of assembly.

<sup>2</sup> Not subject to production test - verified by design/characterization.

**Chip Drawing** (unit:  $\mu\text{m}$ )


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