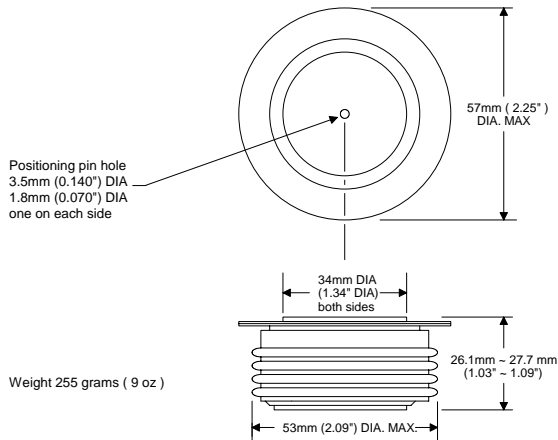


## G package

JEDEC: DO-200AB



## Short Form Data Sheet

Part number scheme

**G D 13 N 35 KNX**  
1 2 3 4 5 6

- 1) Package designation
- 2) Diode designation (i.e. Rectifier)
- 3) Series number
- 4) Designates standard recovery time
- 5) Voltage Multiplier (example: 35 x 100 = 3500)
- 6) Proprietary suffix

### Features:

- ✓ All diffused silicone.
- ✓ Disk press package (nick named, Hockey Puck)
- ✓ Metal and ceramic package construction.
- ✓ Double side cooling.

## Voltage

| Parameter  | Symbol           | Rating                 | Units |
|--|------------------|------------------------|-------|
| Maximum Repetitive Reverse Voltage <small>Notes: 1, 3, 4, 5, 6</small>   | V <sub>RRM</sub> | 3000 ~ 4000            | Volts |
| Maximum non repetitive Surge of Reverse Voltage <small>Notes: 2, 3, 4, 5, 6</small>  | V <sub>RSM</sub> | V <sub>RRM</sub> + 100 | Volts |
| <small>Note 1: T<sub>J</sub> 25°C. Note 2: T<sub>J</sub> 125°C. Note 3: Measured at the peak of the sine wave, Note 4: Below 0°C derate V<sub>DRM</sub> and V<sub>RRM</sub> 10%.<br/>                     Note 5: V<sub>DRM</sub> and V<sub>RRM</sub> have I<sub>DRM</sub>, I<sub>RRM</sub> of up to 50mA. Note 6: V<sub>DR</sub> and V<sub>RR</sub> have typical I<sub>DR</sub>, I<sub>RR</sub> of 2~7mA. Note 7: For DC applications derate V<sub>DRM</sub> 45%.</small> |                  |                        |       |
| Specifying voltage: 3500V, GD13N35<br>3000V, GD13N30 4000V, GD13N40 Above 4000V inquire for availability.  |                  |                        |       |

## Current

| Parameter   | Symbol                                 | Rating          | Units              |
|---|--|-----------------|--------------------|
| Maximum, Average Current <small>Notes: 3, 4</small>   | I <sub>F(AVE)</sub>                    | 1,300           | Amperes            |
| Maximum, RMS Current <small>Notes: 3, 4</small>   | I <sub>F(RMS)</sub>                    | 2,050           | Amperes            |
| Maximum non repetitive Surge Current with no reverse voltage reapplied. <small>Notes: 2, 4</small>  | I <sub>FSM</sub> 0% V <sub>RRM</sub>   | 11.4            | kA                 |
| I <sub>RR</sub> = Typical Repetitive, Reverse, Current. <small>Note: 1</small>  | I <sub>RR</sub>                        | 3 ~ 7           | mA                 |
| Maximum Forward Voltage drop at Maximum Forward Current   | V <sub>FM</sub> @ I <sub>FM</sub>      | 1.6 @ 2000      | V @ A              |
| I <sub>RRM</sub> = Maximum (threshold), Repetitive, Reverse, Current. <small>Note: 1</small>  | I <sub>RRM</sub>                       | 50              | mA                 |
| Fuse's absolute maximum I <sup>2</sup> t with no reverse voltage reapplied <small>Note: 2, 4</small>  | I <sup>2</sup> t, 0% V <sub>RR</sub>   | 1,025           | kA                 |
| Fuse's absolute maximum I <sup>2</sup> t with 100% reverse voltage reapplied <small>Note: 2, 4</small>  | I <sup>2</sup> t, 100% V <sub>RR</sub> | 724             | kA                 |
| Maximum I <sup>2</sup> √t for fuse.   | I <sup>2</sup> √t 0% V <sub>RRM</sub>  | 11,250          | kA <sup>2</sup> √s |
| Reverse Recovery Charge (C <sub>s</sub> = Stored Charge)  | Q <sub>RR</sub>                        | Consult factory | μC <sub>s</sub>    |
| <small>Note 1: T<sub>J</sub> 25°C. Note 2: T<sub>J</sub> 125°C. Note 3: T<sub>Case</sub> 55°C, double side air cooled. Note 4: 180° conduction, 60Hz sine wave.</small> |  |                 |                    |

## Thermal & Mechanical

| Parameter   | Symbol               | Rating      | Units    |
|---|----------------------|-------------|----------|
| Operating Temperature Range   | T <sub>J</sub>       | -40° ~ 180° | °Celsius |
| Maximum Thermal resistance, Case to Heat Sink <small>Notes: 1, 2, 3, 4, 5</small>   | R <sub>th-C-hs</sub> | 0.04        | °C/W     |
| Mounting Pressure   |                      | 1360 ~ 1600 | kg       |
|   |                      | 3000 ~ 3500 | lb.      |
| <small>Note 1: Recommended mounting pressure applied Note 2: Mounting surfaces flat and greased Note 3: Double side cooled<br/>                     Note 4: Case Temperature measured at cathode flange Note 5: 180° on-state</small> |                      |             |          |