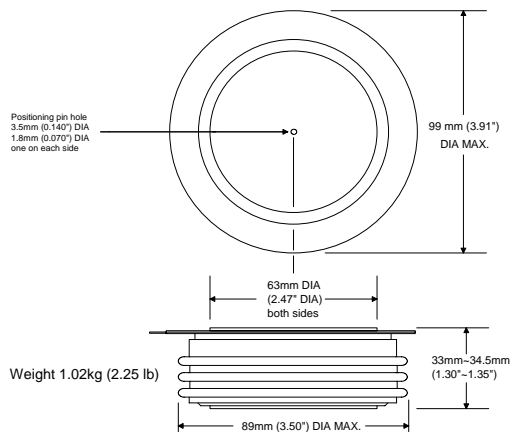


Short Form Data Sheet

YD package JEDEC DO-200AD



Part number scheme

Y D 45 N 16 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: 16 x 100 = 1600)
- 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 _{RRM} | 1200 ~ 1800 | Volts |
| Maximum non repetitive Surge of Reverse Voltage <small>Notes: 2, 3, 4, 5, 6</small> | V _{RSM} | V _{RRM} + 100 | Volts |
| <small>Note 1: T_J 25°C. Note 2: T_J 125°C. Note 3: Measured at the peak of the sine wave, Note 4: Below 0°C derate V_{DRM} and V_{RRM} 10%. Note 5: V_{DRM} and V_{RRM} have I_{DRM}, I_{RRM} of up to 50mA. Note 6: V_{DR} and V_{RR} have typical I_{DR}, I_{RR} of 2~7mA. Note 7: For DC applications derate V_{DRM} 45%.</small> | | | |
| Specifying voltage: | 1400V, YD45N14 1200V, YD45N12 | 1800V, YD45N18 Above 1800V inquire for availability. | |

Current

| Parameter | Symbol | Rating | Units |
|---|--|-----------------|-----------------|
| Maximum, Average Current <small>Notes: 3, 4</small> | I _{F(AVE)} | 4,500 | Amperes |
| Maximum, RMS Current <small>Notes: 3, 4</small> | I _{F(RMS)} | 7,050 | Amperes |
| Maximum non repetitive Surge Current with no reverse voltage reapplied. <small>Notes: 2, 4</small> | I _{FSM} 0% V _{RRM} | 38.2 | kA |
| I _{RR} = Typical Repetitive, Reverse, Current. <small>Note: 1</small> | I _{RR} | 3 ~ 7 | mA |
| Maximum Forward Voltage drop at Maximum Forward Current | V _{FM} @ I _{FM} | 1.2 @ 3000 | V @ A |
| I _{RRM} = Maximum (threshold), Repetitive, Reverse, Current. <small>Note: 1</small> | I _{RRM} | 50 | mA |
| Fuse's absolute maximum I ² t with no reverse voltage reapplied <small>Note: 2, 4</small> | I ² t, 0% V _{RR} | 2,025 | kA |
| Fuse's absolute maximum I ² t with 100% reverse voltage reapplied <small>Note: 2, 4</small> | I ² t, 100% V _{RR} | 1,430 | kA |
| Reverse Recovery Charge (C _s = Stored Charge) | Q _{RR} | Consult factory | μC _s |
| <small>Note 1: T_J 25°C. Note 2: T_J 125°C. Note 3: T_{Case} 55°C, double side air cooled. Note 4: 180° conduction, 60Hz sine wave.</small> | | | |

Thermal & Mechanical

| Parameter | Symbol | Rating | Units |
|---|---------------------|--------------|----------|
| Operating Temperature Range | T _J | -40° ~ 180° | °Celsius |
| Maximum Thermal resistance, Junction to Case <small>Notes:1, 3, 5</small> | R _{th-J-C} | 0.016 | °C/W |
| Mounting Pressure | | 3600 ~ 4500 | kg |
| | | 8000 ~ 10000 | lb. |
| Weight | | 1,020 | Grams |
| | | 36 | oz. |
| <small>Note 1: Recommended mounting pressure applied Note 2: Mounting surfaces flat and greased Note 3: Double side cooled Note 4: Case Temperature measured at cathode flange Note 5: 180° on-state</small> | | | |