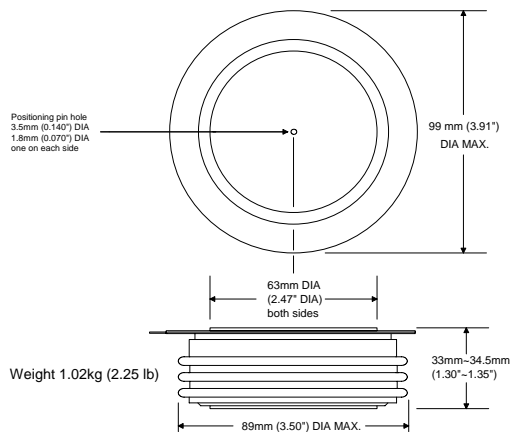


## Short Form Data Sheet

### 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 <sub>RRM</sub>	1200 ~ 1800	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%. 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:	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 <sub>F(AVE)</sub>	4,500	Amperes
Maximum, RMS Current <small>Notes: 3, 4</small>	I <sub>F(RMS)</sub>	7,050	Amperes
Maximum non repetitive Surge Current with no reverse voltage reappplied. <small>Notes: 2, 4</small>	I <sub>FSM</sub> 0%V <sub>RRM</sub>	38.2	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>	1.2 @ 3000	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 reappplied <small>Note: 2, 4</small>	I <sup>2</sup> t, 0% V <sub>RR</sub>	2,025	kA
Fuse's absolute maximum I <sup>2</sup> t with 100% reverse voltage reappplied <small>Note: 2, 4</small>	I <sup>2</sup> t, 100% V <sub>RR</sub>	1,430	kA
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, Junction to Case <small>Notes:1, 3, 5</small>	R <sub>th-J-C</sub>	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>			