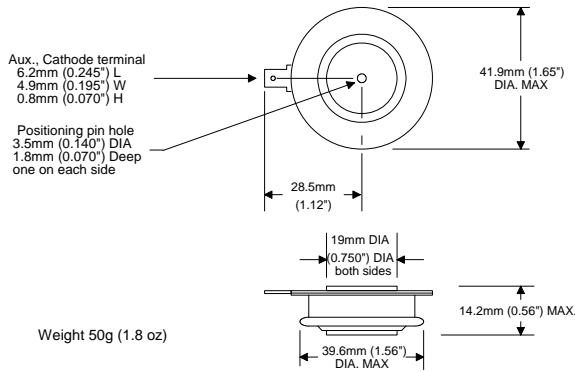


D package

JEDEC: DO-200AA



Short Form Data Sheet

Part number scheme

D D 05 F 16 KN N
 1 2 3 4 5 6 7

- 1) Package designation
- 2) Diode designation (i.e. Rectifier)
- 3) Series number
- 4) Designates fast recovery
- 5) Voltage Multiplier (example: 16 x 100 = 1600)
- 6) Proprietary suffix
- 7) Designates t_{RR} (example: N = 1 μ s)

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 ~ 1600	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 6: V_{RR} has a typical I_{RR} of 2-7mA. Note 4: Below 0°C derate V_{RRM} 10%. Note 5: V_{RRM} has I_{RRM} of ≤ 50mA. Note 7: For DC applications derate V_{RRM} 45%.</small>			
Specifying voltage: 1400V, DD05F14 Above 1600V inquire for availability.			
1200V, DD05F12 1600V, DD05F16			

Current & Dynamics

Parameter	Symbol	Rating	Units
Maximum, Average Current <small>Notes: 3, 4</small>	$I_{F(AVE)}$	500	Amperes
Maximum, RMS Current <small>Notes: 3, 4</small>	$I_{F(RMS)}$	785	Amperes
Maximum non repetitive Surge Current with no reverse voltage reapplied. <small>Notes: 2, 4</small>	I_{FSM} 0% V_{RRM}	6	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}	1.8 @ 1000	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}	167	kA
Fuse's absolute maximum $I^2 t$ with 100% reverse voltage reapplied <small>Note: 2, 4</small>	$I^2 t$, 100% V_{RR}	118	kA
Reverse Recovery Time <small>Note: 1, 4</small>	t_{RR}	1 ~ 1.5	μ s
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>			
Specifying t_{RR} N = 1.0 μ s L = 1.5 μ s Example of how to specify 1200V and 1.5 μ s : DD05F12 KNL			

Thermal & Mechanical

Parameter	Symbol	Rating	Units
Operating Temperature Range	T_J	-40° ~ 180°	°Celsius
Maximum Thermal resistance, Case to Heat Sink <small>Notes: 1, 2, 3, 4, 5</small>	$R_{th-C-hs}$	0.06	°C/W
Mounting Pressure (F_M)		320 ~ 400	kg
		700 ~ 900	lb.
<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>			