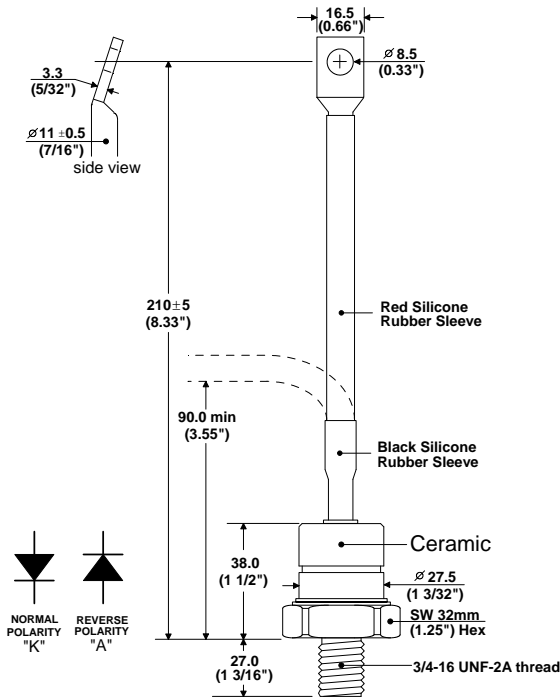


DO-9 package



Short Form Data Sheet

Part number scheme

DO-9 K 25 F 12 KN N
 1 2 3 4 5 6 7

- 1) Package designation
- 2) Polarity ("A" Anode thread, "K" Cathode tread)
- 3) Series number
- 4) Designates fast recovery time
- 5) Voltage Multiplier (example: 12 x 100 = 1200)
- 6) Proprietary suffix
- 7) Designates t_{RR} (example: N = 1 μ s)

Features:

- ✓ All diffused silicone.
- ✓ Metal Ceramic package, conforms to JEDEC D0-9.
- ✓ Hermetic seal.
- ✓ Vibration resistant.

Applications:

- Welding
- Plating
- Power Supplies

Voltage

Parameter	Symbol	Rating	Units
Maximum Repetitive Reverse Voltage <small>Notes: 1, 3, 4, 5, 6</small>	V_{RRM}	1200 ~ 2000	Volts
Maximum non repetitive Surge of Reverse Voltage <small>Notes: 2, 3, 4, 5, 6</small>	V_{RSM}	$V_{RRM} + 100$	Volts
Maximum non repetitive Forward Voltage <small>Notes: 2</small>	$V_{FM} @ I_{FM}$	1.4 @ 780	V @ A
<small>Note 1: T_J 25°C. Note 2: T_J 125°C. Note 3: Measured at the sine wave peak. Note 4: Below 0°C derate V_{RRM} 10%. Note 5: V_{RRM} has I_{RRM} of up to 30mA. Note 6: V_{RR} has typical I_{DR}, I_{RR} of 2-7mA. Note 7: For DC applications derate V_{RRM} 45%.</small>			
<small>Specifying voltage: 1400V, DO-9K25F14 1800V, DO-9K25F18 2000V, DO-9K25F20</small>			

Amperage & Dynamics

Parameter	Symbol	Rating	Units
Maximum, Average Current <small>Notes: 3, 4</small>	$I_{F(AVE)}$	250	Amperes
Maximum, RMS Current <small>Notes: 3, 4</small>	$I_{F(RMS)}$	390	Amperes
Maximum non repetitive Surge Current with no reverse voltage reapplied. <small>Notes: 2, 4</small>	$I_{FSM} 0\% V_{RRM}$	4.5	kA
I_{RR} = Typical Repetitive, Reverse, Current. <small>Note: 1</small>	I_{RR}	3 ~ 7	mA
I_{RRM} = Maximum (threshold), Repetitive, Reverse, Current. <small>Note: 1</small>	I_{RRM}	30	mA
Fuse's absolute maximum $I^2 t$ with no reverse voltage reapplied <small>Notes: 2, 4</small>	$I^2 t, 0\% V_{RR}$	13.7	kA
Reverse Recovery Time <small>Note: 1, 4</small>	t_{RR}	1 ~ 2	μ s
Reverse Recovery Charge (C_S = Stored Charge)	Q_{RR}	Consult factory	μ Cs
<small>Note 1: T_J 150°C. Note 2: T_J 125°C. Note 3: T_{Case} 100°C air cooled. Note 4: 180° conduction, 60Hz sine wave.</small>			
<small>Specifying recovery time N = 1 μs L = 1.5 μs K = 2 μs Example of how to specify 1200V and 1 μs : DO-9K25F12 KNN</small>			

Thermal, Mechanical & Weight

Parameter	Symbol	Rating	Units
Operating Temperature Range	T_J	-40° ~ 180°	°Celsius
Maximum Thermal resistance, Junction to Case <small>Notes: 1, 2</small>	R_{th-J-C}	0.15	°C/W
Maximum Thermal resistance, Case to Heat Sink <small>Notes: 1, 2, 3, 4, 5</small>	$R_{th-C-hs}$	0.1	°C/W
Mounting Torque (No Lubrication on Threads)		35	Nm
		310	lbf/in
Weight		198	Grams
		7	oz.

Note 1: Recommended mounting torque applied Note 2: 180° conduction, 60Hz sine wave. Note 3: Case Temperature measured at hex section of base.