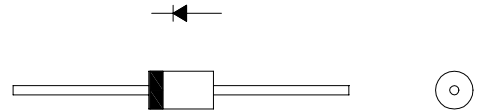


# FRD Type: 20NFA40

## FEATURES

- \* Ultra – Fast Recovery
- \* Low Forward Voltage Drop
- \* Low Power Loss, High Efficiency
- \* High Surge Capability
- \* 400 Volts and 600 Volts Types Available

## OUTLINE DRAWING



## Maximum Ratings

Apporox Net Weight:1.19g

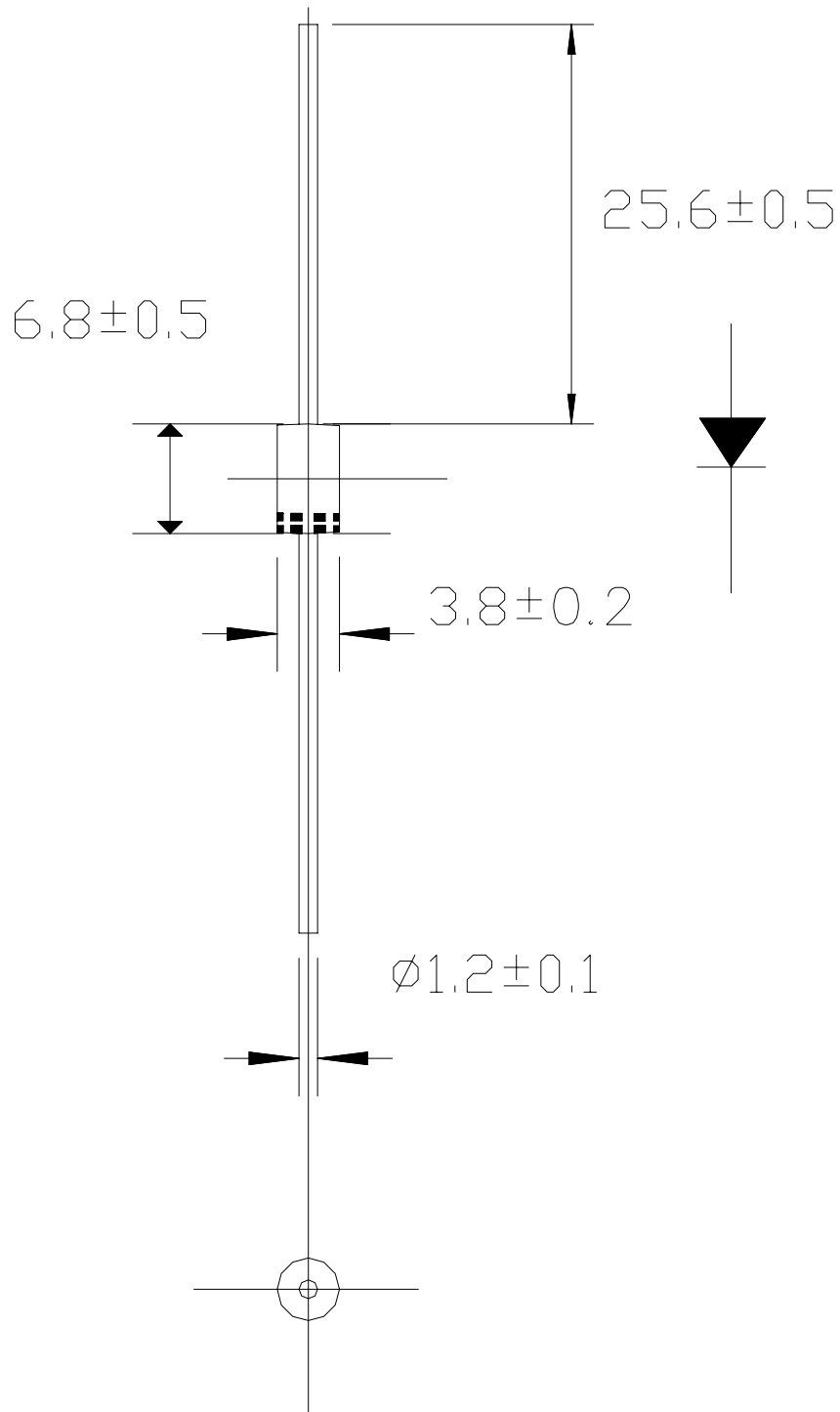
| Rating                              | Symbol       | 20NFA40       |   | Unit                              |
|-------------------------------------|--------------|---------------|---|-----------------------------------|
| Repetitive Peak Reverse Voltage     | $V_{RRM}$    | 400           |   | V                                 |
| Average Rectified Output Current    | $I_O$        | 2.0           | $T_l=114^{\circ}C$<br>Tl: Lead Temperature    | 50HzHalf Sine Wave Resistive Load |
|                                     |              | 1.15          | $T_a=25^{\circ}C$ *1                          |                                   |
| RMS Forward Current                 | $I_{F(RMS)}$ | 3.14          |   | A                                 |
| Surge Forward Current               | $I_{FSM}$    | 50            | 50Hz Half Sine Wave,1cycle,<br>Non-repetitive | A                                 |
| Operating JunctionTemperature Range | $T_{jw}$     | - 40 to + 150 |   | $^{\circ}C$                       |
| Storage Temperature Range           | $T_{stg}$    | - 40 to + 150 |   | $^{\circ}C$                       |

## Electrical/Thermal • Characteristics

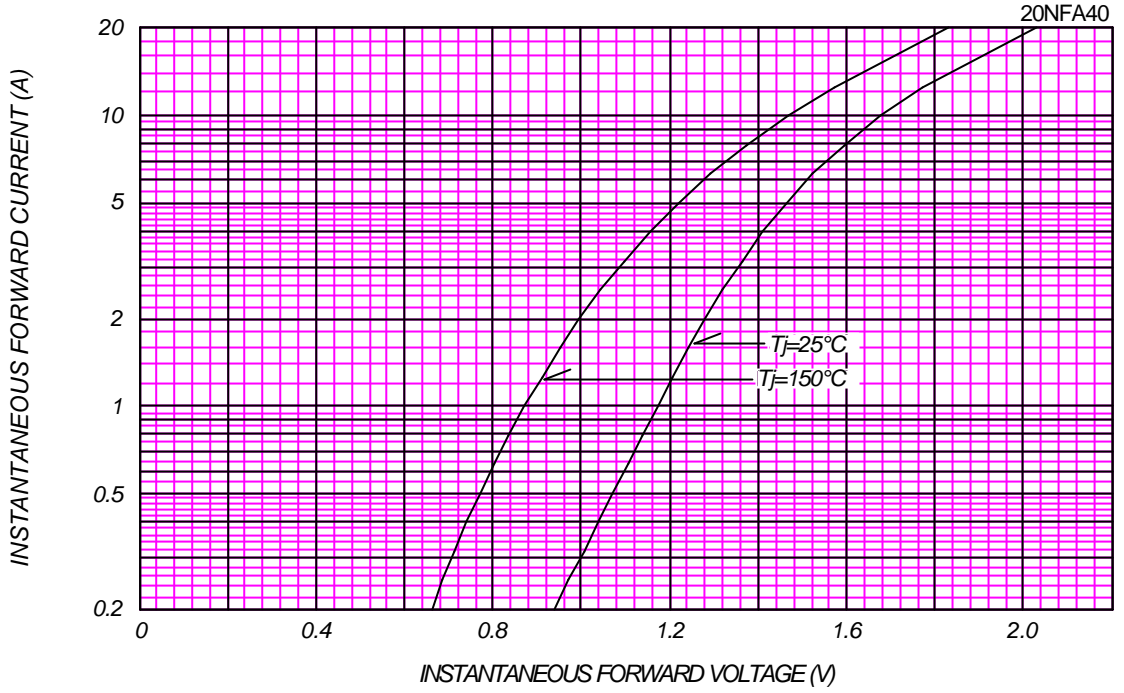
| Characteristics       | Symbol   | Conditions                                     | Min. | Typ. | Max. | Unit          |
|-----------------------|----------|--|------|------|------|---------------|
| Peak Reverse Current  | $I_{RM}$ | $T_j= 25^{\circ}C, V_{RM}= V_{RRM}$            | -    | -    | 10   | $\mu A$       |
| Peak Forward Voltage  | $V_{FM}$ | $T_j= 25^{\circ}C, I_{FM}= 2A$                 | -    | -    | 1.28 | V             |
| Reverse Recovery Time | trr      | $T_a= 25^{\circ}C, I_{FM}=2A -di/dt=50A/\mu s$ | -    | -    | 35   | ns            |
| Thermal Resistance    | Rth(j-l) | Junction to Lead                               | -    | -    | 15   | $^{\circ}C/W$ |
|                       | Rth(j-a) | Junction to Ambient                            |      |      | 90   |               |

\*1: Without Fin or P.C. Board

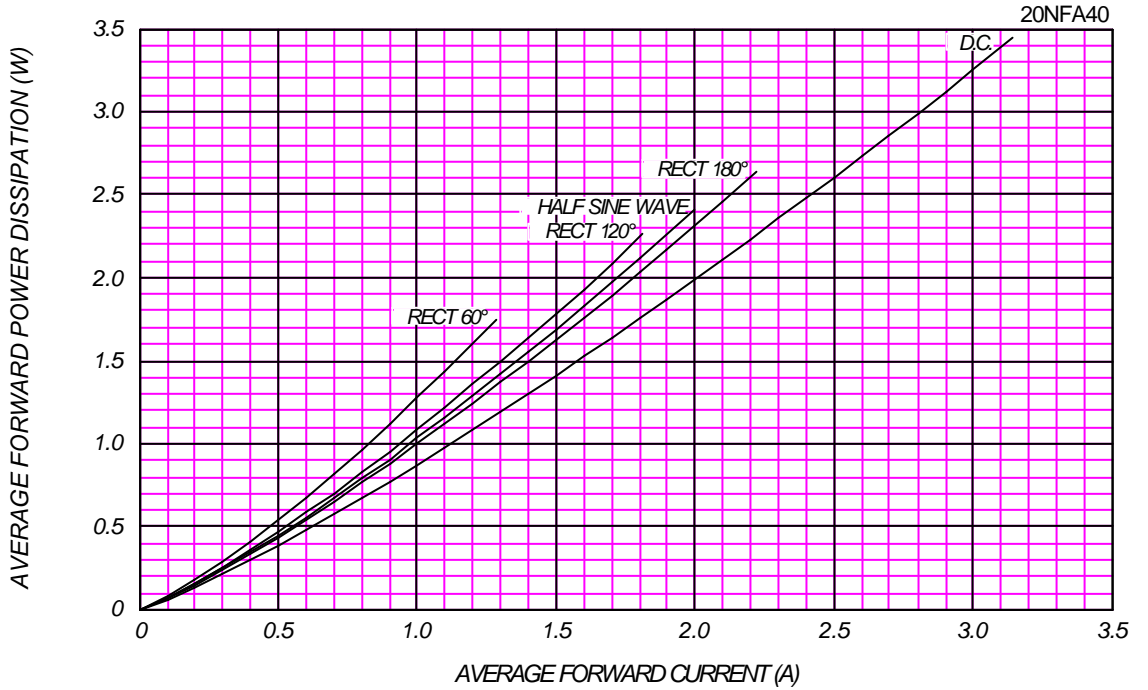
20NFA\_ OUTLINE DRAWING (Dimensions in mm)



FORWARD CURRENT VS. VOLTAGE



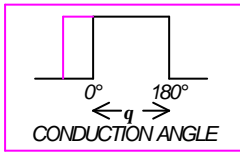
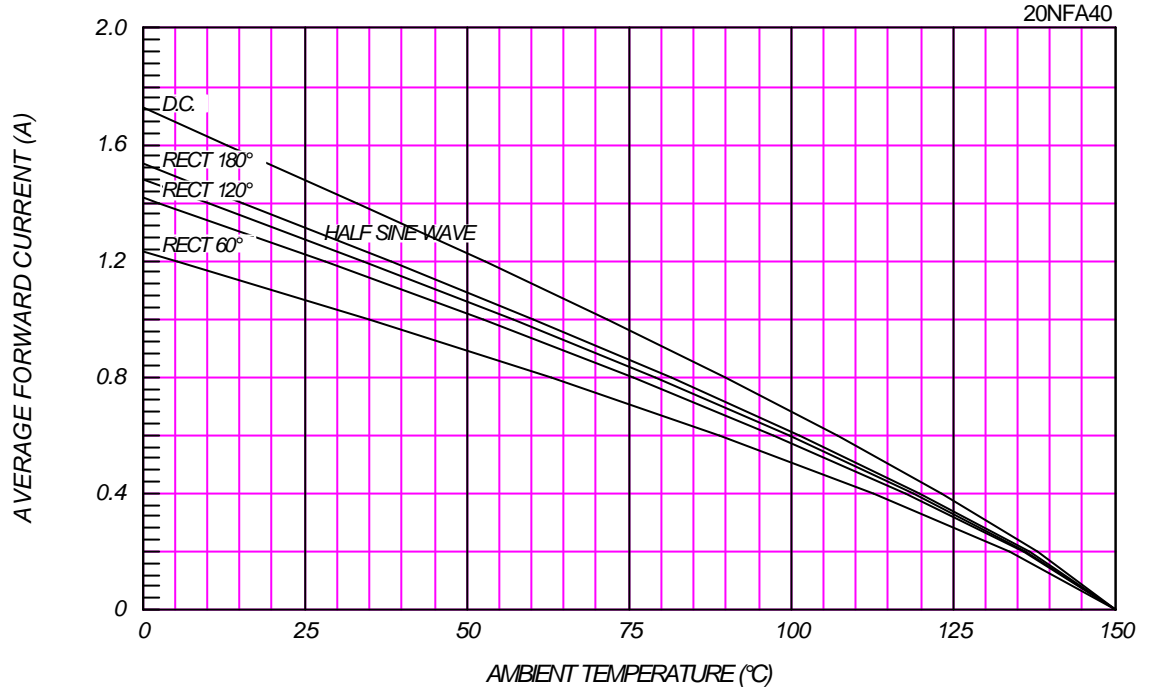
AVERAGE FORWARD POWER DISSIPATION



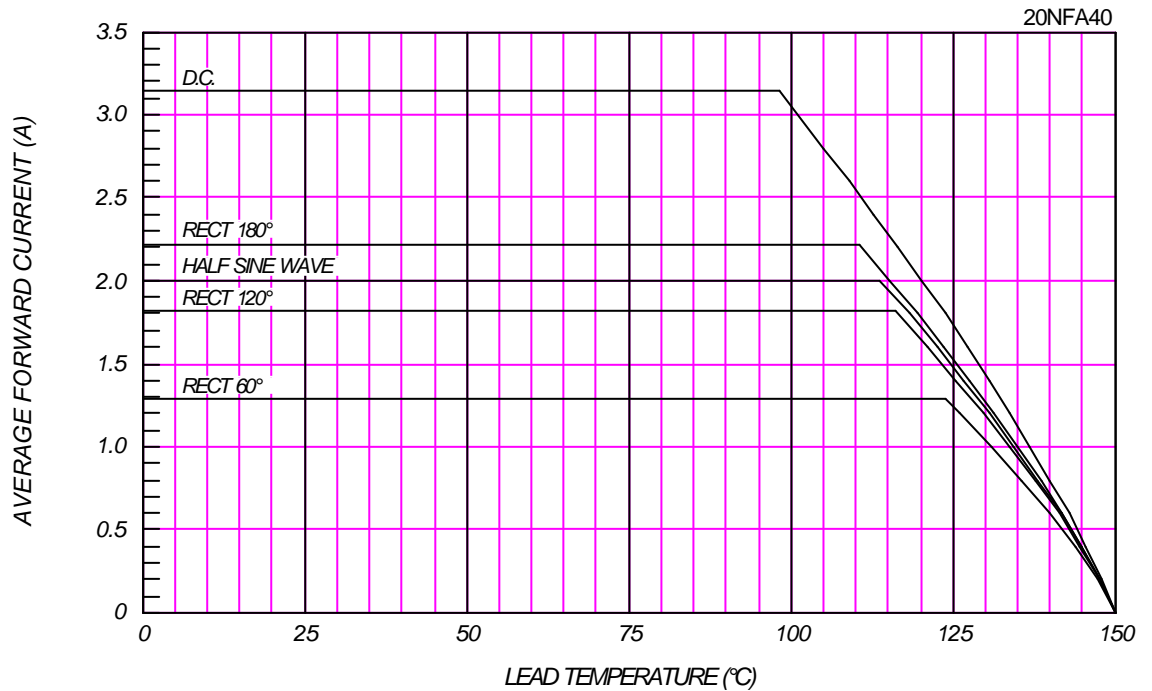


### AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

Without Fin or P.C.Board



### AVERAGE FORWARD CURRENT VS. LEAD TEMPERATURE



# SURGE CURRENT RATINGS

f=50Hz, Half Sine Wave, Non-Repetitive, No Load

20NFA40

