

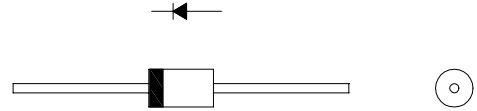
3A 400A 210ns

FRD Type: 30PRA40

OUTLINE DRAWING

FEATURES

- * Super Fast Recovery
- * Low Forward Voltage Drop
- * Low Power Loss, High Efficiency
- * High Surge Capability
- * 100 Volts thru 600 Volts Types Available



Maximum Ratings

Apporox Net Weight:1.19g

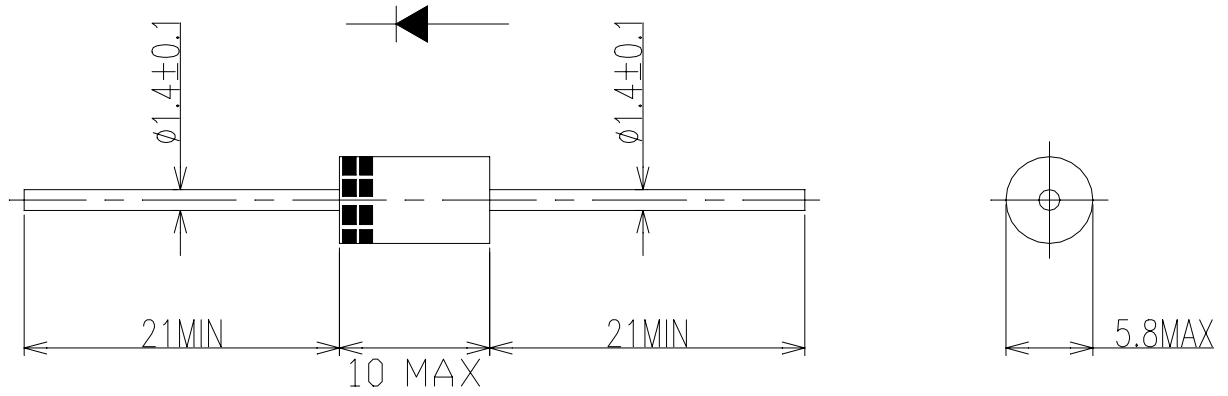
| Rating | Symbol | 30PRA40 | | Unit |
|--------------------------------------|--------------|---------------|---|--------------------|
| Repetitive Peak Reverse Voltage | V_{RRM} | 400 | | V |
| Average Rectified Output Current | I_O | 3.0 | 50Hz Half Sine Wave Resistive Load $T_l=121^{\circ}\text{C}$ (T_l :Lead Temperature) $T_a=39^{\circ}\text{C}$ *1 | A |
| | | 1.6 | | |
| RMS Forward Current | $I_{F(RMS)}$ | 4.71 | | A |
| Surge Forward Current | I_{FSM} | 70 | 50Hz Half Sine Wave, 1cycle, Non-repetitive | A |
| Operating Junction Temperature Range | T_{jw} | - 40 to + 150 | | $^{\circ}\text{C}$ |
| Storage Temperature Range | T_{stg} | - 40 to + 150 | | $^{\circ}\text{C}$ |

Electrical/Thermal • Characteristics

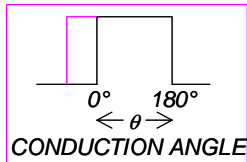
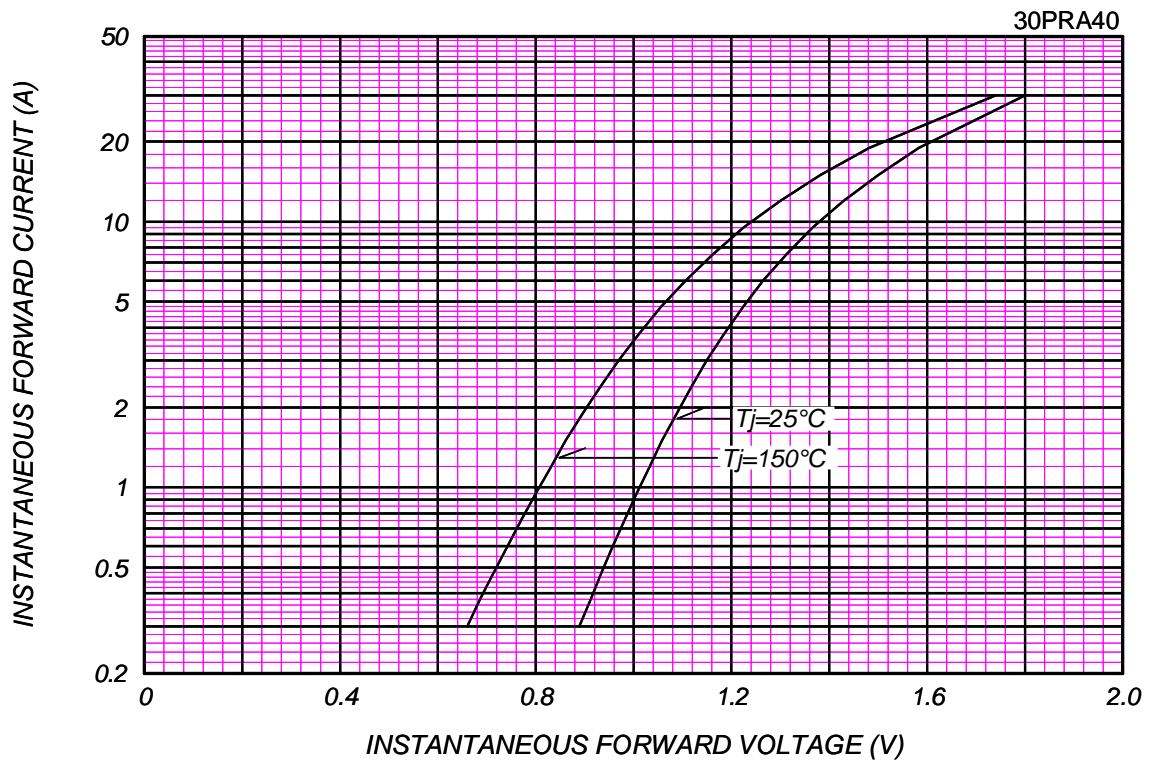
| Characteristics | Symbol | Conditions | Min. | Typ. | Max. | Unit |
|-----------------------|---------------|---|------|------|------|-----------------------------|
| Peak Reverse Current | I_{RM} | $T_j = 25^{\circ}\text{C}$, $V_{RM} = V_{RRM}$ | - | - | 10 | μA |
| Peak Forward Voltage | V_{FM} | $T_j = 25^{\circ}\text{C}$, $I_{FM} = 3\text{ A}$ | - | - | 1.15 | V |
| Reverse Recovery Time | t_{rr} | $T_a = 25^{\circ}\text{C}$, $I_{FM} = 1\text{A}$, $-di/dt = 50\text{A}/\mu\text{s}$ | | | 210 | ns |
| Thermal Resistance | $R_{th(j-l)}$ | Junction to Lead | - | - | 8 | $^{\circ}\text{C}/\text{W}$ |
| | $R_{th(j-a)}$ | Junction to Ambient *1 | | | 80 | |

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

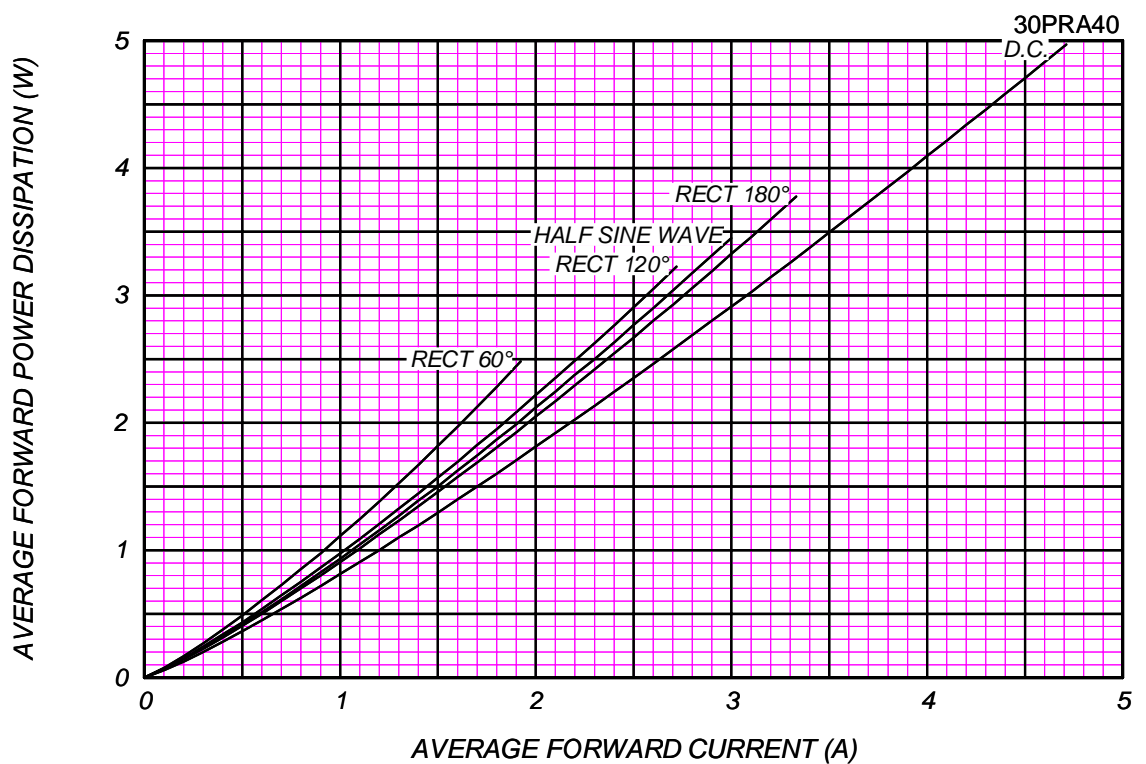
30PRA_ OUTLINE DRAWING (Dimensions in mm)

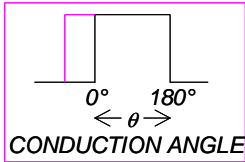


FORWARD CURRENT VS. VOLTAGE

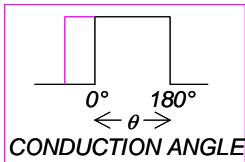
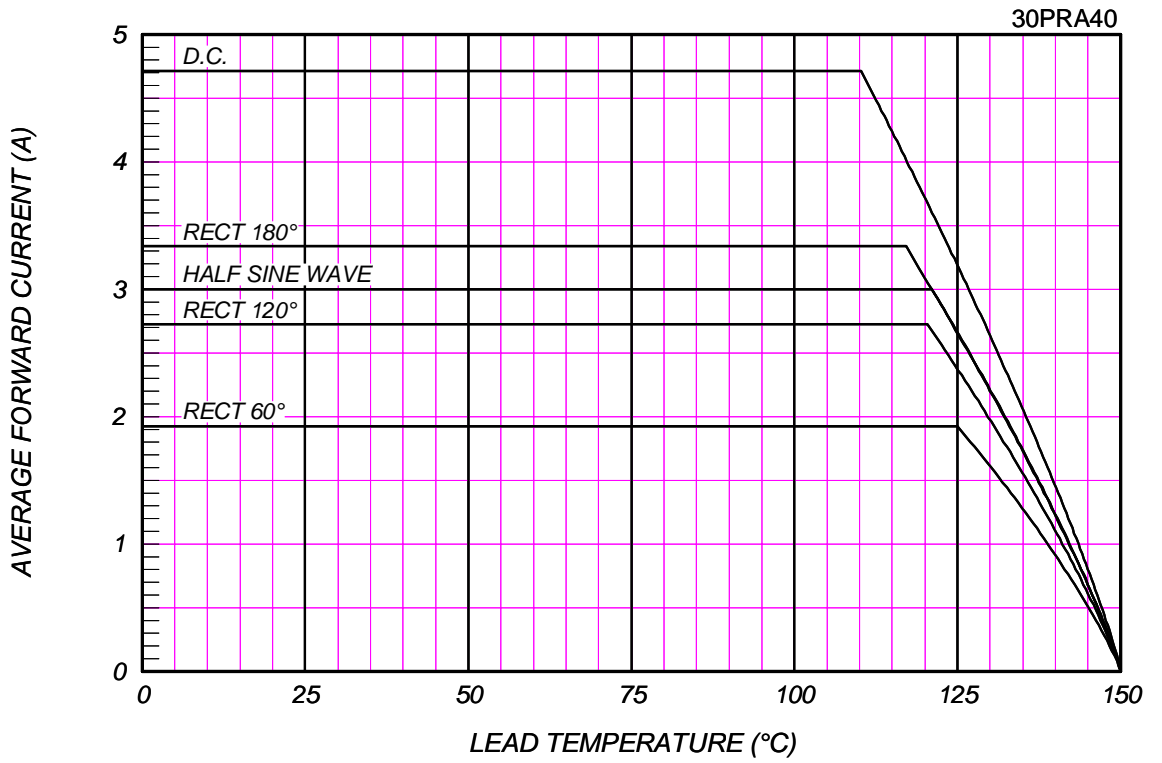


AVERAGE FORWARD POWER DISSIPATION



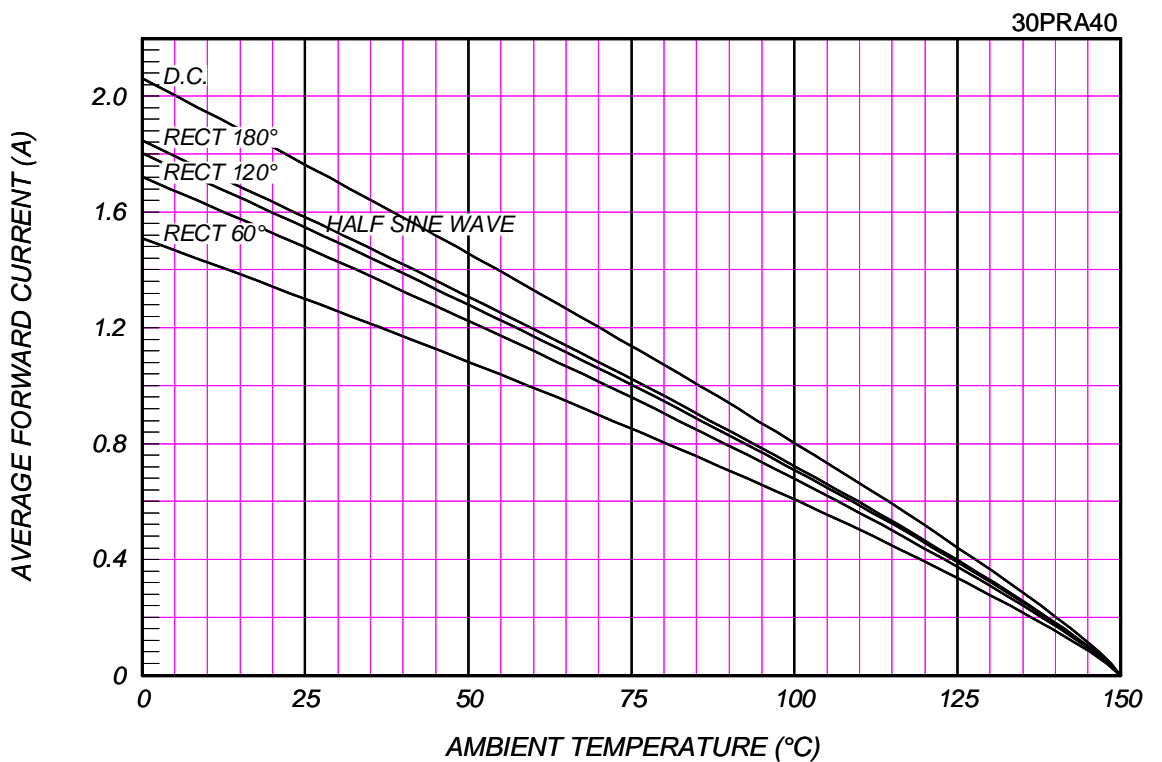


AVERAGE FORWARD CURRENT VS. LEAD TEMPERATURE



AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

Without Fin or P.C. Board



SURGE CURRENT RATINGS

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

30PRA40

