*New Jersey Semi-Conductor Products, Inc.*

**20 STERN AVE.**
**SPRINGFIELD, NEW JERSEY 07081**
**U.S.A.**

**TELEPHONE: (973) 376-2922**
**(212) 227-6005**
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## QUICK REFERENCE DATA

- $V_R$ = 1500 - 3000V
- $I_F$ = 0.35A
- $t_{rr}$ = 250nS
- $I_R$ = 0.25μA

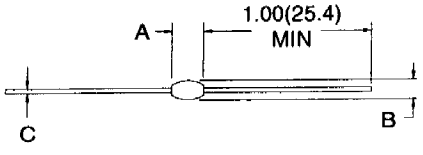
## AXIAL LEADED HERMETICALLY SEALED HIGH VOLTAGE FAST RECTIFIER DIODE

- Low reverse recovery time
- High thermal shock resistance
- Hermetically sealed with Metoxilite metal oxide
- Low switching losses
- Soft, non-snap off, recovery characteristics

### ABSOLUTE MAXIMUM RATINGS (@ 25°C unless otherwise specified)

| | Symbol | F15 | F20 | F25 | F30 | Unit |
|---|---|---|---|---|---|---|
| Working reverse voltage | $V_{RWM}$ | 1500 | 2000 | 2500 | 3000 | V |
| Repetitive reverse voltage | $V_{RRM}$ | 1500 | 2000 | 2500 | 3000 | V |
| Average forward current (@ 55°C in oil) | $I_{F(AV)}$ | ← 0.35 → | | | | A |
| Repetitive surge current (@ 55°C) | $I_{FRM}$ | ← 1.25 → | | | | A |
| Non-repetitive surge current ($t_p$ = 8.3mS, @ $V_R$ & $T_{jmax}$) | $I_{FSM}$ | ← 5.0 → | | | | A |
| Storage temperature range | $T_{STG}$ | ← -65 to +175 → | | | | °C |
| Operating temperature range | $T_{OP}$ | ← -65 to +175 → | | | | °C |

### MECHANICAL




| A | B | C |
|---|---|---|
| 0.350(8.89) MAX | 0.215(5.5) MAX | 0.040±0.003 (1.02±0.08) |

**Quality Semi-Conductors**

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**CHARACTERISTICS** (@ 25°C unless otherwise specified)

| | Symbol | F15 F20 F25 F30 | Unit |
|---|---|---|---|
| Average forward current max. (pcb mounted; $T_A$ = 55°C) | | | |
| for sine wave | $I_{F(AV)}$ | 0.16 | A |
| for square wave (d = 0.5) | $I_{F(AV)}$ | 0.20 | A |
| Average forward current max. (unstirred oil at 55°C) | | | |
| for sine wave | $I_{F(AV)}$ | 0.33 | A |
| for square wave | $I_{F(AV)}$ | 0.35 | A |
| $I^2t$ for fusing (t = 8.3mS) max. | $I^2t$ | 0.10 | $A^2S$ |
| Forward voltage drop max. @ $I_F$ = 0.10A, $T_j$ = 25°C | $V_F$ | 5.00 | V |
| Reverse current max. | | | |
| @ $V_{RWM}$, $T_j$ = 25°C | $I_R$ | 0.25 | µA |
| @ $V_{RWM}$, $T_j$ = 100°C | $I_R$ | 10 | µA |
| Reverse recovery time max. 50mA $I_F$ to 100mA $I_R$. Recover to 25mA $I_{RR}$. | $t_{rr}$ | 250 | nS |
| Junction capacitance typ. @ $V_R$ = 5V , f = 1MHz | $C_j$ | 2.5 | pF |
| Thermal resistance - junction to oil | | | |
| Stirred oil | $R_{\theta JO}$ | 30 | °C/W |
| Unstirred oil | $R_{\theta JO}$ | 48 | °C/W |
| Thermal resistance - junction to amb. on 0.06" thick pcb. 1oz copper. | $R_{\theta JA}$ | 120 | °C/W |