High Voltage Diode H1812

Designed for B & W TV High Voltage Rectifier up to 20 kVDC CRT Voltage
Avalanche Quality Rectifier Junctions
Molding Material Rated UL 94 V-O
Uniform Chip-to-Chip Recovery
Low RFI in TV Circuits
Platinum Doped

MAXIMUM RATINGS
(All T_A = 25°C unless otherwise noted) | SYMBOL | UNITS
--- | --- | ---
Repetitive Peak Reverse Voltage | V_RRM | 30 | kV
Forward Current (Average) See Fig. 1, 2 & 3 | I_FMAX | 600 | μA
Forward Current (Total RMS) | I_FRM | 4.6 | mA
Repetitive Peak Forward Current | I_PM | 100 | mA
Storage Temperature Range | T_Sto | -40 to +150 | °C
Ambient Operating Temperature Range | T_A | -40 to +100 | °C

ELECTRICAL CHARACTERISTICS
(All T_A = 25°C unless otherwise noted) | SYMBOL | UNITS
--- | --- | ---
Maximum Reverse Current at V_R = 30kV | I_R | 1 | μA
Maximum Forward Voltage Drop at I_F = 6mA | V_RM | 85 | V
Reverse Recovery Time, I_F = 2mA, I_R = 4mA and I_F (req) = -1 mA (Fig. 4) | t_r | 100 typical, 175 Max. | nsec

Soldering
Temperature: 260°C Max. for 10 sec. max.
1/16" from epoxy

Encapsulating Considerations: See Varo Application Note
"Design Considerations for HV Silicon Rectifiers Integrated into Flyback Transformers."

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<tr>
<th>LTR</th>
<th>INCHES</th>
<th>MILLIMETERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>.0236 Dia.</td>
<td>0.6 Dia.</td>
</tr>
<tr>
<td>B</td>
<td>1.5</td>
<td>36.10</td>
</tr>
<tr>
<td>C</td>
<td>.30 Min.</td>
<td>12.7 Min.</td>
</tr>
<tr>
<td>D</td>
<td>.255</td>
<td>6.47</td>
</tr>
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Band on Cathode End
NOTES:
1) Operation in cross-hatched region should be limited to less than 5 min.
2) Air temp, measured with calibrated laboratory-grade alcohol thermometer.
3) Case temp. = 110°C when rectifier is operating at 22 kV
   V_{peak} = 600 μA, in 95°C still air ambient.
   Case temp. measured with Tempil “Templog” Temp.
   Indicating Liquid.
   Source: Tempil Division
   Big Three Industries, Inc. 
   South Plainfield NJ 07080
4) All temperatures presented here are approx. 10°C below known thermal runaway points. We recommend that customers intentionally raise the still air ambient temp on their designs to learn the actual thermal runaway point for their application. The final design should have at least 20°C safety factor.