features
- Electrically isolated from case
- High speed
- Optimized for fiber optic applications
- TO-46 header, flat window can
- RoHS compliant

description
The CFE320A is intended for use in fiber-optic systems and contains an 850nm AlGaAs IRED mounted on a TO-46 header. Features are high coupled power and fast rise and fall times in an easily mounted hermetic package. A glass microlens is mechanically centered over the IRED to enhance light coupling.

absolute maximum ratings (T_A = 25°C unless otherwise stated)
- storage temperature: -55°C to +150°C
- operating temperature: -55°C to +125°C
- lead soldering temperature: 260°C
- reverse voltage: 5VDC
- continuous forward current: 100mA

notes:
1. 1/16” (1.6mm) from case for 5 seconds maximum.
2. Derate linearly 0.80mA/°C from 25°C free air temperature to T_A = +125°C.
3. Continuous operation at this current level requires a heat sink.

electrical characteristics (T_A = 25°C, unless otherwise noted)

<table>
<thead>
<tr>
<th>symbol</th>
<th>parameter</th>
<th>min</th>
<th>typ</th>
<th>max</th>
<th>units</th>
<th>test conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>P_O</td>
<td>Total power output</td>
<td>15</td>
<td>19</td>
<td>-</td>
<td>µW</td>
<td>I_F = 100mA</td>
</tr>
<tr>
<td>V_F</td>
<td>Forward voltage</td>
<td>-</td>
<td>1.8</td>
<td>2.2</td>
<td>V</td>
<td>I_F = 100mA</td>
</tr>
<tr>
<td>\lambda</td>
<td>Peak emission wavelength</td>
<td>830</td>
<td>850</td>
<td>870</td>
<td>nm</td>
<td>I_F = 100mA</td>
</tr>
<tr>
<td>BW</td>
<td>Spectral bandwidth at half power points</td>
<td>-</td>
<td>35</td>
<td>-</td>
<td>nm</td>
<td>I_F = 100mA</td>
</tr>
<tr>
<td>t_r</td>
<td>Output rise time</td>
<td>-</td>
<td>5.0</td>
<td>8.0</td>
<td>ns</td>
<td>I_F = 100mA, 10% - 90%(4)</td>
</tr>
<tr>
<td>t_f</td>
<td>Output fall time</td>
<td>-</td>
<td>5.0</td>
<td>10</td>
<td>ns</td>
<td>I_F = 100mA, 10% - 90%(4)</td>
</tr>
</tbody>
</table>

notes:
3. Graded index fiber, 50 µm core, N.A. = 0.20.
4. Prebias at 5mA.