Reliability on Polymer Aluminum Electrolytic Capacitor

Part No. : ECAS Series

Field Data

The Failure Rate is estimated from the results of returned failure products (customer’s incoming inspection, in-process, field failures, etc.). The failure rate calculation is as follows.

Calculation of Failure Rate:

$$ \lambda = \gamma \times \frac{K}{T} \times 10^9 (\text{Fit}) = 0.5\text{Fit}以下(0.5\text{Fit} or less) $$

Where:

- $\lambda$ = Failure Rate
- $\gamma$ = Number of accumulated failures
- $T$ = Accumulated component hours
- FIT = Failures In Time
- $K$ = Coefficient of confidence level at 60% (Reference Table 1)

<table>
<thead>
<tr>
<th>Failure Quantity</th>
<th>K</th>
<th>Failure Quantity</th>
<th>K</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0.916</td>
<td>3</td>
<td>1.39</td>
</tr>
<tr>
<td>1</td>
<td>2.02</td>
<td>4</td>
<td>1.31</td>
</tr>
<tr>
<td>2</td>
<td>1.55</td>
<td>5</td>
<td>1.26</td>
</tr>
</tbody>
</table>

This is the current results, but we expect that failure rate will decrease with the addition of additional data.