$(0|1)^* 01$

$$
\begin{aligned}
\partial_0(L_0) &= \partial_0\left((0|1)^* 01\right) \\
&= \partial_0((0|1)^*)\, 01 \mid \varepsilon((0|1)^*)\, \partial_0(01) \\
&= \partial_0(0|1)\,(0|1)^* 01 \mid \lambda 1 \\
&= (\partial_0(0) \mid \partial_0(1))\,(0|1)^* 01 \mid 1 \\
&= (\lambda \mid \emptyset)\,(0|1)^* 01 \mid 1 \\
&= (0|1)^* 01 \mid 1 \\
&= L_1
\end{aligned}
$$

$$
\begin{aligned}
\partial_1(L_0) &= \partial_1\left((0|1)^* 01\right) \\
&= \partial_1((0|1)^*)\, 01 \mid \varepsilon((0|1)^*)\, \partial_1(01) \\
&= \partial_1(0|1)\,(0|1)^* 01 \mid \lambda \emptyset \\
&= (\partial_1(0) \mid \partial_1(1))\,(0|1)^* 01 \\
&= (\emptyset \mid \lambda)\,(0|1)^* 01 \\
&= (0|1)^* 01 \\
&= L_0
\end{aligned}
$$

$$
\begin{aligned}
\partial_0(L_1) &= \partial_0\left((0|1)^* 01 \mid 1\right) \\
&= \partial_0\left((0|1)^* 01\right) \mid \partial_0(1) \\
&= \partial_0((0|1)^*)\, 01 \mid \varepsilon((0|1)^*)\, \partial_0(01) \mid \emptyset \\
&= \partial_0(0|1)\,(0|1)^* 01 \mid \lambda 1 \\
&= (\partial_0(0) \mid \partial_0(1))\,(0|1)^* 01 \mid 1 \\
&= (\lambda \mid \emptyset)\,(0|1)^* 01 \mid 1 \\
&= (0|1)^* 01 \mid 1 \\
&= L_1
\end{aligned}
$$

$$
\begin{aligned}
\partial_1(L_1) &= \partial_1((0|1)^* 01 \mid 1) \\
&= \partial_1((0|1)^* 01) \mid \partial_1(1) \\
&= \partial_1((0|1)^*)\, 01 \mid \varepsilon((0|1)^*)\, \partial_1(01) \mid \lambda \\
&= \partial_1(0|1)\,(0|1)^* 01 \mid \lambda\emptyset \mid \lambda \\
&= (\partial_1(0) \mid \partial_1(1))\,(0|1)^* 01 \mid \lambda \\
&= (\emptyset \mid \lambda)\,(0|1)^* 01 \mid \lambda \\
&= (0|1)^* 01 \mid \lambda \\
&= L_2
\end{aligned}
$$

$$
\begin{aligned}
\partial_0(L_2) &= \partial_0((0|1)^* 01 \mid \lambda) \\
&= \partial_0((0|1)^* 01) \mid \partial_0(\lambda) \\
&= (0|1)^* 01 \mid 1 \\
&= L_1
\end{aligned}
$$

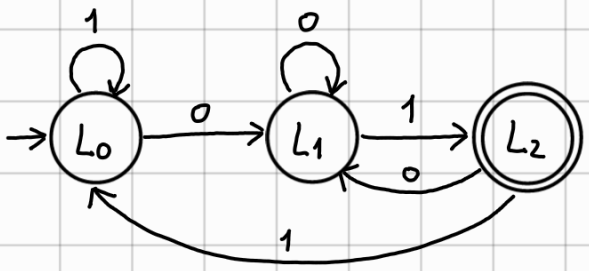
$$
\begin{aligned}
\partial_1(L_2) &= \partial_1((0|1)^* 01 \mid \lambda) \\
&= (0|1)^* 01 \\
&= L_0
\end{aligned}
$$

Construimos el autómata $A = (Q, \Sigma, \delta, q_0, F)$ para $(01|1)^* 01$

$Q = \{L_0, L_1, L_2\}$ $\quad \Sigma = \{0, 1\}$ $\quad q_0 = L_0$ $\quad F = \{L_2\}$
$\lambda \in L(L_2)$

$\delta : Q \times \Sigma \to Q$

	∂_0	∂_1
$L_0 = (01\|1)^* 01$	L_1	L_0
$L_1 = (01\|1)^* 01 \| 1$	L_1	L_2
$L_2 = (01\|1)^* 01 \| \lambda$	L_1	L_0



Acepta: 01 001 101 0101 00110100 01

Rechaza: λ 0 1 11 10 01011