$\mathrm{Ext}^\circ(\mathcal{S}; \mathcal{O}(L^*), \Omega^2) \cong H^\circ(\mathcal{S}, \mathcal{O}(L^*)^* \otimes \Omega^2) = H^\circ(\mathcal{S}, \mathcal{O}(L) \otimes \Omega^2)$
$= H^\circ(\mathcal{S}, \Omega^2(L)) = H^\circ(\mathcal{S}, \mathcal{O}(K_{\mathcal{S}}+L)) = H^\circ(\mathcal{O}(K+L))$
$\mathrm{Ext}^\circ(\mathcal{S}; \mathcal{O}\oplus\mathcal{O}, \Omega^2) \cong H^\circ(\mathcal{S}, (\mathcal{O}^*\oplus\mathcal{O}^*)\otimes\Omega^2) \cong H^\circ(\mathcal{S}, (\mathcal{O}^*\otimes\Omega^2)$
$\oplus (\mathcal{O}^*\otimes\Omega^2)) = H^\circ(\mathcal{S}, \Omega^2\oplus\Omega^2) = H^\circ(\mathcal{S}, \Omega^2) \oplus H^\circ(\mathcal{S}, \Omega^2)$
$= H^\circ(\mathcal{O}(K)) \oplus H^\circ(\mathcal{O}(K))$.

From the exact sequence of sheaves

$$0 \longrightarrow \mathcal{J}(L) \longrightarrow \mathcal{O}(L) \longrightarrow \mathcal{O}/\mathcal{J} \longrightarrow 0$$

we have

$$0 \to \mathrm{Ext}^\circ(\mathcal{S}; \mathcal{O}/\mathcal{J}, \Omega^2) \to \mathrm{Ext}^\circ(\mathcal{S}; \mathcal{O}(L), \Omega^2) \to \mathrm{Ext}^\circ(\mathcal{S}; \mathcal{J}(L), \Omega^2) \to \mathrm{Ext}^1(\mathcal{S}; \mathcal{O}/\mathcal{J}, \Omega^2)$$

Once we prove $\mathrm{Ext}^\circ(\mathcal{S}; \mathcal{O}/\mathcal{J}, \Omega^2) = \mathrm{Ext}^1(\mathcal{S}; \mathcal{O}/\mathcal{J}, \Omega^2) = 0$, then

$$\mathrm{Ext}^\circ(\mathcal{S}; \mathcal{O}(L), \Omega^2) = \mathrm{Ext}^\circ(\mathcal{S}; \mathcal{J}(L), \Omega^2)$$
$$\underset{\substack{\uparrow \\ \text{by P706 the first property.}}}{=} H^\circ(\mathcal{S}, \mathcal{O}(L)^*\otimes\Omega^2) = H^\circ(\mathcal{S}, \mathcal{O}(L^*)\otimes\Omega^2) = H^\circ(\mathcal{S}, \mathcal{O}(K-L))$$

$\Rightarrow$ It remains to show that $\mathrm{Ext}^\circ(\mathcal{S}; \mathcal{O}/\mathcal{J}, \Omega^2) = \mathrm{Ext}^1(\mathcal{S}; \mathcal{O}/\mathcal{J}, \Omega^2) = 0$.

By P706, $E_2^{0,0} = H^\circ(\mathcal{S}, \underline{\mathrm{Ext}}^\circ_{\mathcal{O}}(\mathcal{O}/\mathcal{J}, \Omega^2)) = 0$

$E_\infty^{0,0} \Rightarrow \mathrm{Ext}^\circ(\mathcal{S}; \mathcal{O}/\mathcal{J}, \Omega^2) = 0$

$E_2^{0,1} = H^\circ(\mathcal{S}, \underline{\mathrm{Ext}}^1_{\mathcal{O}}(\mathcal{O}/\mathcal{J}, \Omega^2)) = 0$, since $\underset{\substack{\| \\ 0.}}{\underline{\mathrm{Ext}}^1_{\mathcal{O}}(\mathcal{O}/\mathcal{J}, \Omega^2)}$

$E_\infty^{0,1} \Rightarrow \mathrm{Ext}^1(\mathcal{S}; \mathcal{O}/\mathcal{J}, \Omega^2) = 0$