Answer on Question \#45873 - Physics - Astronomy | Astrophysics
Considering, that average distance Jupiter-Sun approximately equals to 5.2 a.u. and 1 l.y. approximately equals to 63241 a.u, we have

$$
D_{S-J}=\frac{5.2}{63241}=8.22 \cdot 10^{-5} l . y .
$$

The less distance between Jupiter and Earth we can evaluate from consideration, that orbit of Jupiter and Earth are both circular, with radiuses 5.2 a.u. and 1 a.u. respectively.

So, $D_{(J-E)_{\min }}=5.2-1=4.2 \mathrm{a} . \mathrm{u}$

$$
D_{S-J}=\frac{4.2}{63241}=6.64 \cdot 10^{-5} l . y
$$

Comments: l.y. - light years, a.u. - astronomical unit

