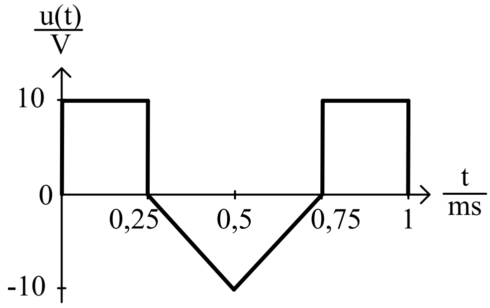

$$U^2 = \frac{1}{T}\int_0^T \left(u(t)\right)^2 dt = \frac{2}{T}\int_0^{\frac{T}{4}} \hat{u}^2 \, dt + \frac{2}{T}\int_{\frac{T}{4}}^{\frac{T}{2}} \left(-\frac{4\hat{u}}{T}\,t + \hat{u}\right)^2 \, dt = \frac{2}{T}\int_0^{\frac{T}{4}} \hat{u}^2 \, dt + \frac{2}{T}\int_{\frac{T}{4}}^{\frac{T}{2}} \frac{16\hat{u}^2}{T^2}\,t^2 - \frac{8\hat{u}^2}{T}\,t + \hat{u}^2 \, dt$$

$$= \frac{2}{T}\left[\hat{u}^2 t\right]_0^{\frac{T}{4}} + \frac{2}{T}\left[\frac{16\hat{u}^2}{3T^2}\,t^3 - \frac{4\hat{u}^2}{T}\,t^2 + \hat{u}^2 t\right]_{\frac{T}{4}}^{\frac{T}{2}} = \frac{2}{T}\hat{u}^2\frac{T}{4} + \frac{2}{T}\left[\frac{16\hat{u}^2}{3T^2}\,\frac{T^3}{8} - \frac{4\hat{u}^2}{T}\,\frac{T^2}{4} + \hat{u}^2\frac{T}{2} - \frac{16\hat{u}^2}{3T^2}\,\frac{T^3}{64} + \frac{4\hat{u}^2}{T}\,\frac{T^2}{16} - \hat{u}^2\frac{T}{4}\right]$$

$$= \frac{\hat{u}^2}{2} + \frac{4\hat{u}^2}{3} - 2\hat{u}^2 + \hat{u}^2 - \frac{\hat{u}^2}{6} + \frac{\hat{u}^2}{2} - \frac{\hat{u}^2}{2} = \frac{\hat{u}^2}{2} + \frac{8\hat{u}^2}{6} - \frac{6\hat{u}^2}{6} - \frac{\hat{u}^2}{6} = \frac{\hat{u}^2}{2} + \frac{\hat{u}^2}{6} = \frac{2\hat{u}^2}{3}$$

$$U \;\; = \sqrt{\tfrac{2}{3}}\,10\mathrm{V} = 8{,}165\mathrm{V}$$

$$F_F = \frac{U}{|\overline{U}|} = \frac{8{,}165V}{7{,}5\mathrm{V}} = 1{,}089$$