$f(t) = L^{-1}[\frac{F(s)}{1.25399 \cdot \tau}]$ is the normalized shaping function.

$$f(t/\tau) = L^{-1}[\frac{\tau \bullet F(s \cdot \tau)}{1.25399 \cdot \tau}] = L^{-1}[\frac{F(s \cdot \tau)}{1.25399}]$$