FORMULA 4.132.2

$$\int_0^\infty \frac{\sin ax \, \cosh \beta x}{e^{\gamma x} - 1} \, dx = -\frac{a}{2(a^2 + \beta^2)} + \frac{\pi}{2\gamma} \frac{\sinh \frac{2\pi a}{\gamma}}{\cosh \frac{2\pi a}{\gamma} - \cos \frac{2\pi \beta}{\gamma}}$$