The great Etorofu earthquake occurred in Kurile-Kamchatka subduction zone on 6 November 1958. This earthquake was originally defined as an interplate earthquake although the depth was slightly deep. However, the earthquake was recently characterized as a slab event. In this paper, dip, depth, and slip amount of the earthquake were estimated using tsunami waveforms recorded at 13 tide gauge stations along the Pacific Ocean. Strike and Rake of the fault model were fixed to be 225 and 90 degrees, respectively. A rupture area previously estimated from aftershocks within 3 days, 150 km*80 km, was used at first. The tsunami was numerically computed using interplate earthquake model (dip = 20 degree, depth = 16 km) and slab earthquake model (dip = from 20 to 60 degree every 10 degree, depth = from 27.5 km to 47.5 km every 10 km). We found that a slab earthquake model of dip = 40 degree, depth = 37.5 km best fit observed and computed tsunami waveforms. Next, tsunami waveforms were calculated using various source models which have different rupture area at the same other parameters. However, the computed tsunami waveforms from the original rupture area, 150 km*80 km, best explained the observed tsunami waveforms. The seismic moment was calculated to be 1.5*10**21 Nm (Mw 8.1) assuming that the rigidity is 6.5*10**10 N/m**2.