The main-belt asteroid 1700 Zvezdara was observed over the time period 2009 August – November in order to determine its synodic rotation period (P) and amplitude (A), as well as the absolute magnitude (H) and phase slope parameter (G). The following values have been found: $P=9.114 \pm 0.001$ h; $A=0.10 \pm 0.02$ mag; $H=12.447 \pm 0.019$ mag; $G=0.072 \pm 0.019$. 