This study describes the High-P/high-T metamorphism estimated from garnet-clinopyroxene granulites intercalating with pelitic gneisses in the Higo metamorphic rocks, central Kyushu, Japan. Three metamorphic stages are determined in the granulite by using mineral assemblage and reaction textures; M1 stage is determined by garnet porphyroblast + coarse-grained clinopyroxene, M2 stage by coronitic clinopyroxene + plagioclase within garnet and symplectite of clinopyroxene + plagioclase surrounding garnet and M3 stage by amphibole + plagioclase. Pressure and temperature conditions for M1 and M2 stages are estimated by using TWQ (Berman, 1991), which calculated P-T conditions from univariant net-transfer reactions defined by Grt + Cpx + Pl + Qtz assemblage in M1 and M2 stages: 2Grt + Alm + 3Qtz = 3Hd + 3An and 2Grt + Prp + 3Qtz = 3Di + 3An. The P-T conditions for M1 and M2 stages were 11.3 kbar, 843 °C and 5.5-11.9 kbar, 715-954 °C, respectively. The results show a clockwise P-T path comprising of a prograde isobaric heating and a steep decompression cooling. The P-T path and the extremely high temperature estimated in the granulite infer a tectonic setting of continental plate margin where a magmatic arc was subducted and later exhumation occurred. An anatexis could occur in the Higo metamorphic rocks if they are saturated with H2O after or during the exhumation. The anatexis could cause the low-P/high-T metamorphism due to the melt migration during or after the exhumation.