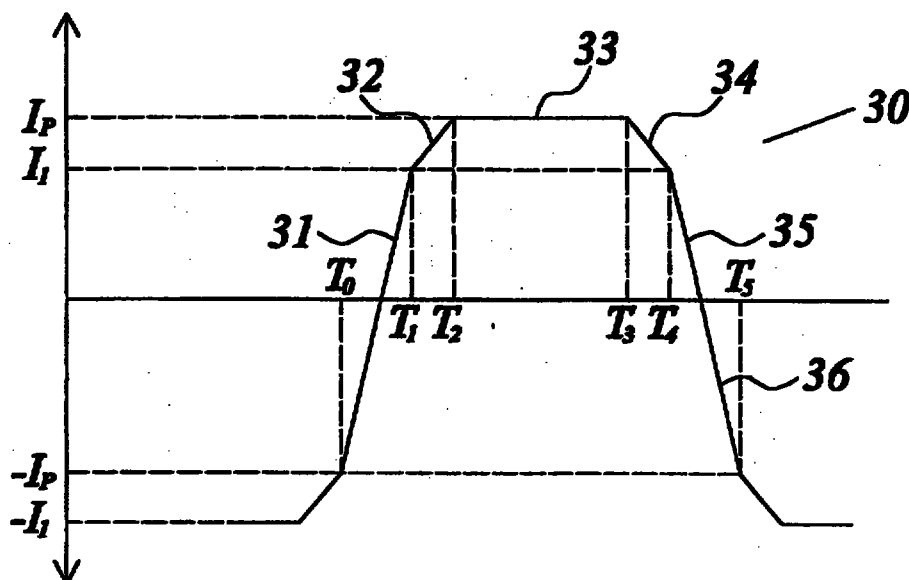




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(54) Title: AN ELECTRONIC BALLAST CIRCUIT



(57) Abstract

A driver waveform (30) for a gas discharge lamp is produced by a ballast circuit. The waveform (30) has a substantially vertical rising portion 31 forming an instantaneous, of time 10 μ secs or so between T_0 and T_1 , transition between currents $-I_I$ and $+I_I$ which are at a current value less than peak currents I_P . Then in a transition rise at controlled slew rate the waveform (30) rises with a straight rising portion (32) to a steady peak current I_P identified by the numeral (33). The peak current I_P is maintained between T_2 and T_3 which accounts for between 40% and 80% of the cycle time. Then at T_3 decline occurs with waveform having a declining slew rate portion (34) to time T_4 when instantaneous transition between time T_4 and T_5 and currents $+I_I$ to $-I_I$ occurs. The driver waveform reduces the formation of high frequency harmonics and increases arc stability.