

BALLAST IC WITH SHUT-DOWN FUNCTION

ABSTRACT OF THE DISCLOSURE

A MOS gate drive (MGD) integrated circuit drives a pair of MOS gated power semiconductor devices such as are used in a half bridge circuit to drive a load in a resonant power supply circuit or to drive a gas discharge lamp in a ballast circuit. The gate drive circuit includes a protection circuit which protects against damage to the components of the driver circuit when a lamp fails or is removed by disabling both of the driver outputs. When the lamp is replaced, the gate drive circuit restarts the lamp driver circuit without cycling the lamp power switch. The protection circuit disables the driver outputs when a low logic level signal falls below a threshold voltage. The lamp driver circuit is restarted when the low logic level signal exceeds the threshold voltage.

Fig. 5