G823
−24V Regulator Control

The G823 module contains a temperature-compensated voltage regulator control with an over-voltage protection circuit. This module is used in conjunction with the -24V pass element (G825) to supply a regulated -24V for the memory of the PDP-15 (see illustration). A thermistor mounted on the G613 module is connected to the -24V regulator control module to provide a negative temperature coefficient for controlling the regulated -24V. For a typical setting of -24V at 25°C and with an average output current of 4A, the output voltage changes to -22.4V at 50°C and to -25V at 0°C. The over-voltage protection circuit will disconnect the output above -26V.

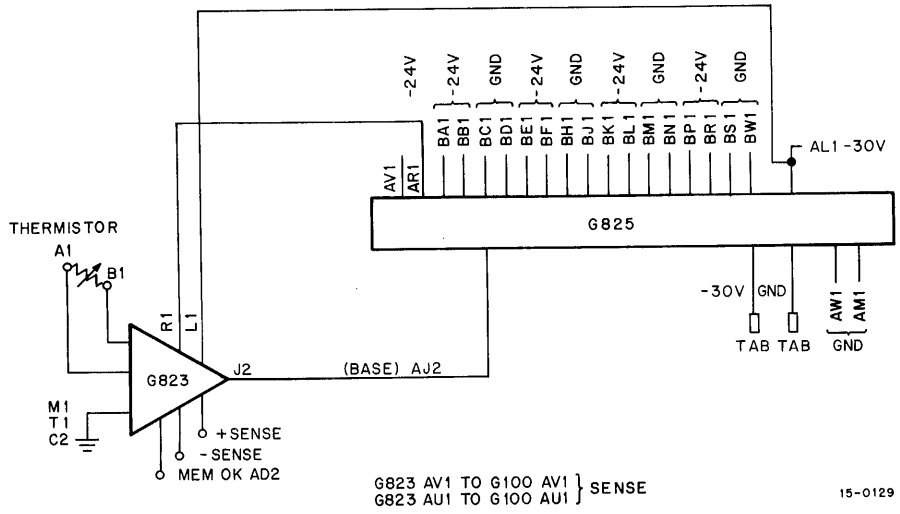
The following are the input and output characteristics of the G823 module.

INPUTS: The G823 module receives -30V from the 715 power supply.

OUTPUTS: The outputs of the G823 module are:

a. A variable -18V to -28V at 5.5A. When the module is set for -24V regulation, the output is ±1% with a ripple voltage of less than 50 mV peak-to-peak at full load. Rotating the potentiometer CCW provides a more negative voltage setting.

b. An open collector driver (output pin N1) that supplies a memory power OK signal when the regulator control is operating properly.



G823 Simplified Diagram