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SINCE 1975

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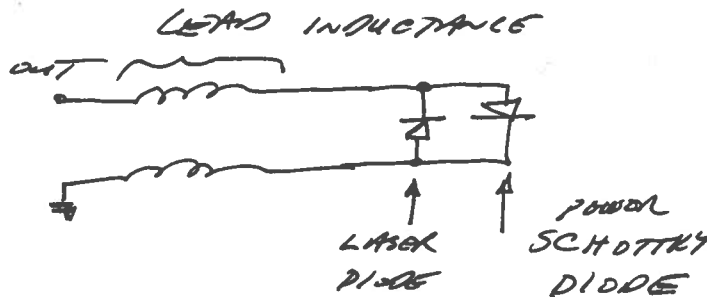
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MODEL AV-108B-3-C-OP1-SLIB

LASER DIODE TEST PRECAUTIONS

When attempting to drive a laser diode, the following precautions must be taken. Failure to do so may result in failure of the laser diode.

- 1) Extremely low inductance-high current leads must be used to connect the diode to the output terminals, to avoid the inductance kick due to LENZ'S LAW (see page 16 and the performance check sheet). Reverse spikes of 5 or 10 Volts are shown in the performance check sheet where the load was connected using 40 cm long copper strips (about 1 cm wide). Reducing the lead lengths by an order of magnitude would dramatically reduce the reverse spike amplitude.
- 2) The laser diode should be shunted by a power Schottky diode as shown below to clip any reverse spikes (due to LENZ'S LAW).



- 3) Initially, the duty cycle should be set extremely low (eg. $\leq 1\%$) and the peak current low increased in moderate increments.
- 4) If it is necessary to change PW or PRF ranges, the amplitude setting should first be reduced to zero.
- 5) Do not connect or disconnect a laser diode unless the prime power to the driver is turned off.
- 6) The current through the laser diode should initially be monitored using both the rear panel current monitor output and a current probe.

March 7/97

Disk: AV-108

Name: SN7846TE.ST