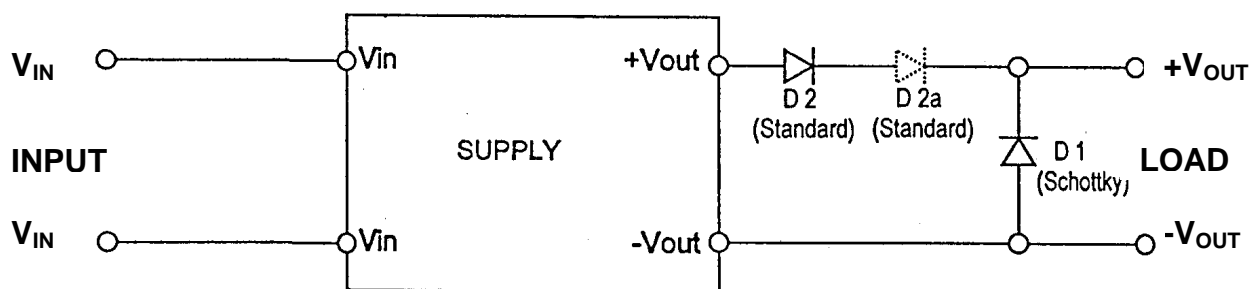




PROTECTION OF SUPPLY OUTPUTS
AGAINST
INVERSE VOLTAGES
AND
POSITIVE VOLTAGES RETURNING FROM LOAD



REMARKS ABOUT PROTECTION OF SUPPLY OUTPUTS

D1:

Bypassing the off-line supply when inverse voltages appear from load or other supplies. The diode should be dimensioned to carry the maximum possible current. It should have lowest possible forward voltage V_f (e.g. a Schottky diode).

D2, D2a:

Keeps the V_f of D1 away from the supply when inverse voltage appears from load. The diode should be dimensioned to carry maximum possible supply current. To bypass 100% of any external current, the freewheel V_f of D2 should always be greater than the maximum V_f of D1. In certain situations the insertion of an additional series diode may be recommendable (D2a).

(Explanation: "RCC" [Ringing Coil Converter] power supplies may encounter start-up trouble, if their transformer core is being magnetized and saturated by an external current flowing through the secondary windings!)

D2 may also be useful to block-off positive returning voltage supplied from load side, which could cause to:

- discharge over the supplies error amp-, bleeder-, control- and OED circuits
- supply start-up trouble
- damage to an off-line supply
- activation of the supplies over voltage protection
- malfunction of an off-line supplies signalling-and control-circuits