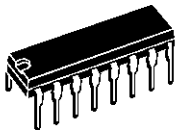
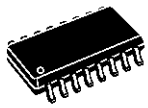
L6598

HIGH VOLTAGE RESONANT CONTROLLER

- HIGH VOLTAGE RAIL UP TO 600V
- dV/dt IMMUNITY ±50V/ns IN FULL TEMPERATURE RANGE
- DRIVER CURRENT CAPABILITY: 250mA SOURCE 450mA SINK
- SWITCHING TIMES 80/40ns RISE/FALL WITH 1nF LOAD
- CMOS SHUT DOWN INPUT
- UNDER VOLTAGE LOCK OUT
- SOFT START FREQUENCY SHIFTING TIMING
- SENSE OP AMP FOR CLOSED LOOP CONTROL OR PROTECTION FEATURES
- HIGH ACCURACY CURRENT CONTROLLED OSCILLATOR
- INTEGRATED BOOTSTRAP DIODE
- CLAMPING ON Vs
- SO16, DIP16 PACKAGES





DIP16 **SO16N**

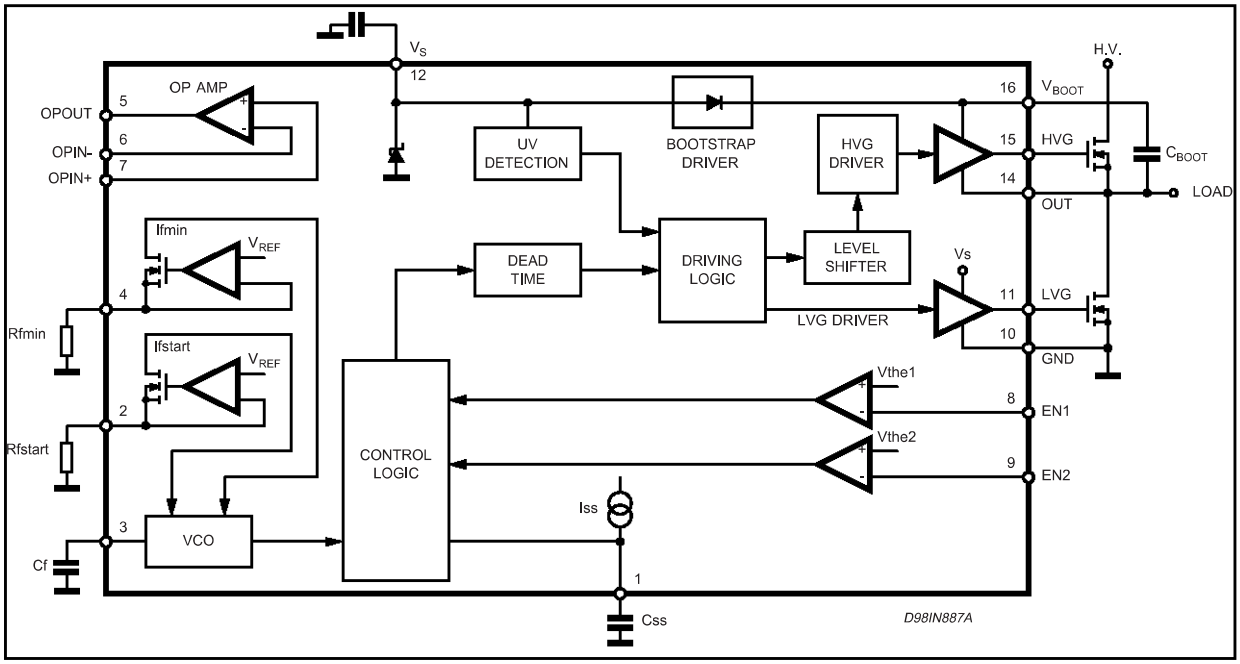
ORDERING NUMBERS:

L6598 **L6598D**

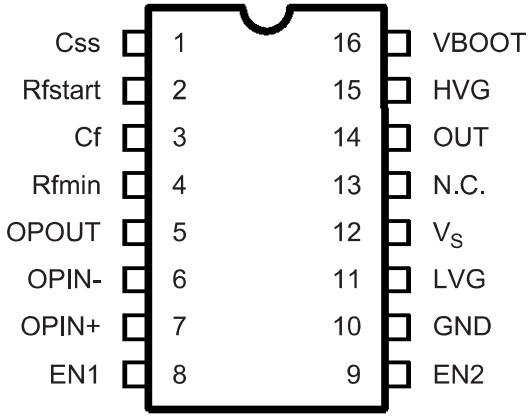
DESCRIPTION

The L6598 is manufactured with the BCD OFF LINE technology, able to ensure voltage ratings up to 600V, making it perfectly suited for AC/DC Adapters and wherever a Resonant Topology can be beneficial. The device is intended to drive two Power MOS, in the classical Half Bridge Topology. A dedicated Timing Section allows the designer to set Soft Start Time, Soft Start and Minimum Frequency. An Error Amplifier, together with the two Enable inputs, are made available. In addition, the integrated Bootstrap Diode and the Zener Clamping on low voltage supply, reduces to a minimum the external parts needed in the applications.

BLOCK DIAGRAM



PIN CONNECTION



D98IN888

THERMAL DATA

Symbol	Parameter	SO16N	DIP16	Unit
$R_{th\ j\text{-}amb}$	Thermal Resistance Junction to Ambient	120	80	°C/W

PIN FUNCTION

N.	Name	Function
1	C_{SS}	Soft Start Timing Capacitor
2	R_{fstart}	Soft Start Frequency Setting - Low Impedance Voltage Source - See also C_f
3	C_f	Oscillator Frequency Setting - see also R_{fmin}, R_{fstart}
4	R_{fmin}	Minimum Oscillation Frequency Setting - Low Impedance Voltage Source - See also C_f
5	OP_{out}	Sense OP AMP Output - Low Impedance
6	OP_{on-}	Sense Op Amp Inverting Input - High Impedance
7	OP_{on+}	Sense Op Amp Non Inverting Input - High Impedance
8	EN1	Half Bridge Latched Enable
9	EN2	Half Bridge Unlatched Enable
10	GND	Ground
11	LVG	Low Side Driver Output
12	V_s	Supply Volatge with Internal Zener Clamp
13	N.C.	Not Connected
14	OUT	High Side Driver Reference
15	HVG	High Side Driver Output
16	V_{boot}	Bootstrapped Supply Voltage