

# Control ICs for Energy-Efficient Fluorescent Ballasts

### IRS2530D Dim8™ Features:

- 8-pin Dimming Ballast Controller
- Dimming to 10%
- Flash-free start at all dimming levels
- Fully-integrated lamp failure protection features

### IRS2530D Benefits:

- Lowest PCB size on the market
- Lowest BOM on the market
- Easy to use

### IRS2158D Features:

- Small 16-pin dimming ballast controller
- Dimming below 10% with standard method
- Fully-integrated lamp failure protection features

### IRS2158D Benefits:

- Short time to market
- Ultra reliable ballast
- Lowest BOM at this level of performance



## IR's Control ICs Slash Component Count; Increase Reliability and Performance

The IRS2530D and IRS2158D 600V control ICs for energy-efficient dimming fluorescent lighting ballast applications add to IR's rich portfolio of energy-efficient products. With a high level of integration and protection features, the new control ICs provide the small form factor, functionality and performance required while reducing part count and simplifying design.



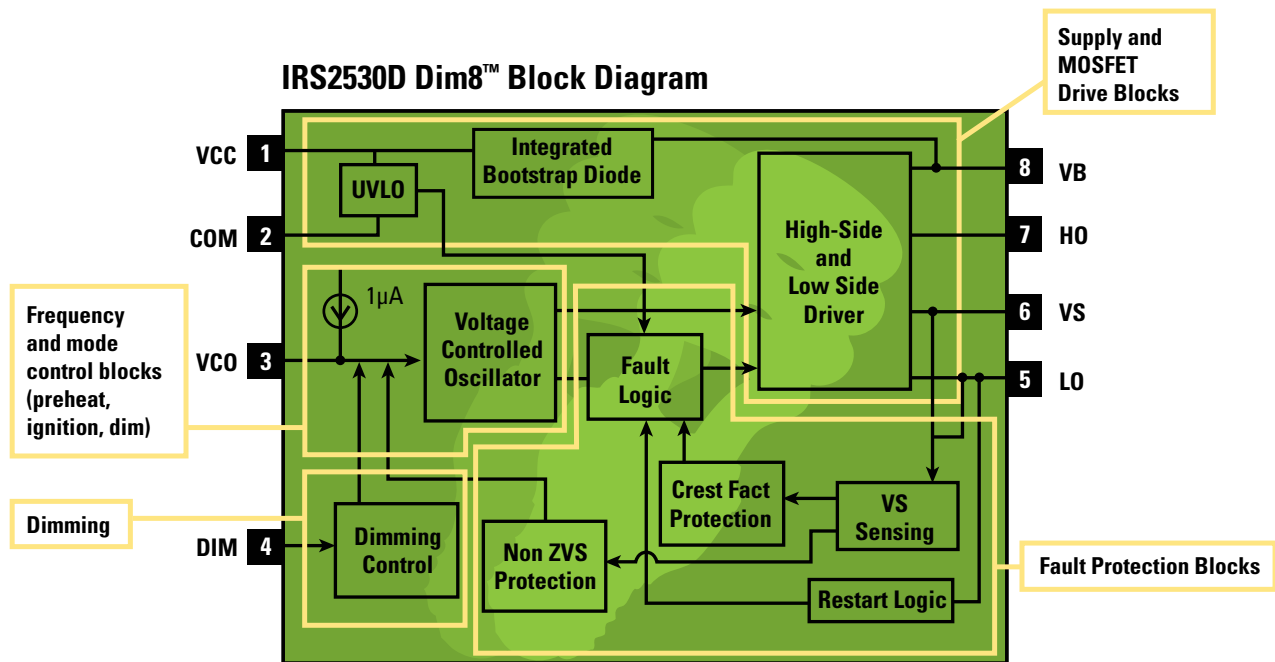
Programmability	IRS2530D	IRS2158D
Preheat Time	Yes	Yes
Preheat Frequency	-	Yes
Closed Loop Ignition Current	-	Yes
Run Frequency	Yes	Yes
Deadtime	-	Yes
Features	IRS2530D	IRS2158D
Fixed Deadtime	2.0 $\mu$ s	Programmable
Failure to Strike	On Over Current	Yes
Open Filament	On Over Current	Yes
Brownout Protection	with non-ZVS	Yes
Shutdown Pin	-	Yes
Fault Counter	-	Yes
End-of-Life Protection	-	Yes
Integration	IRS2530D	IRS2158D
Bootstrap Diode	Yes	Yes
Crest Factor Over Current Protection	Yes	-
Adaptive Non-ZVS Protection	Yes	-
Dimming	IRS2530D	IRS2158D
Minimum Dimming Level	10%	< 10%
Package	IRS2530D	IRS2158D
DIP & SOIC	8 pin	16 pin

# Control ICs for Energy-Efficient Fluorescent Ballasts

The IRS2530D DIM8™ is a unique linear dimming ballast control IC with half-bridge driver in a compact 8-pin form factor. The new device provides a competitive solution to replace inefficient incandescent bulbs in multi-level and three-way compact fluorescent lighting (CFL) applications. Requiring only several small external components, the IRS2530D significantly simplifies and shrinks circuit design and delivers a dimming system performance of up to 10 percent for compact fluorescent lamps as well as linear ballasts.

The IRS2158D 16-pin fluorescent dimming ballast control IC with half-bridge driver is designed for applications requiring dimming performance below 10 percent. Comprehensive protection features such as protection from failure of a lamp to strike, filament failures and end-of-life protection are offered making the device well suited for thin lamps including the increasingly popular T5 lamp.

### IRS2530D Dim8™ Block Diagram



### IRS2158D Block Diagram

