

# NXP GreenChip Synchronous Rectification controller TEA1792

## The next level in adapter efficiency

Optimized for use in power adapters, this next-generation GreenChip device enables low current consumption, high system efficiency, and a reduced bill of materials.

### Key features

- ▶ Small, industry standard TSOP6 package enabling compact applications
- ▶ Accurate Synchronous Rectification functionality
- ▶ Wide supply voltage range (8.5 to 38 V)
- ▶ High level of integration, resulting in a very low external component count
- ▶ High driver output voltage of 10 V to drive all MOSFET brands to the lowest  $R_{DS(on)}$
- ▶ Selectable regulation level for driver stage
- ▶ Low current consumption
- ▶ High system efficiency from no load to full load
- ▶ UnderVoltage Protection (UVP)
- ▶ Also available in SO8 package

### Applications

- ▶ Adapters
- ▶ Chargers
- ▶ LCD TV

The NXP TEA1792 is a GreenChip IC dedicated to control Synchronous Rectification on the secondary side of discontinuous mode and quasi-resonant flyback converters.

As a member of NXP's new generation of GreenChip Synchronous Rectifier controller ICs for switched mode power supplies, it offers a very high level of integration. The result is a cost-effective power supply with a very low number of external components with a compact size.

### GreenChip

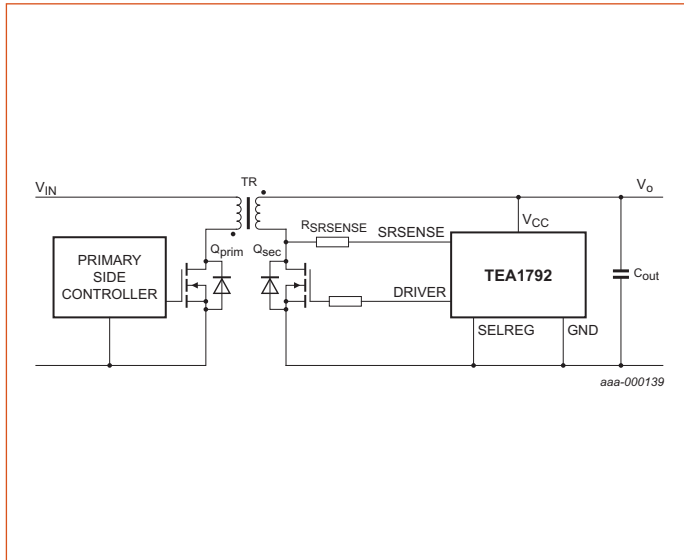
NXP's GreenChip family makes it easier and more cost-effective for power supply manufacturers to comply with energy efficiency specifications such as ENERGY STAR® and ErP lot 6 (EuP lot 6). The GreenChip family is designed specifically for energy saving and has, from its inception, led industry standards in PC power efficiency, especially in portable formats.



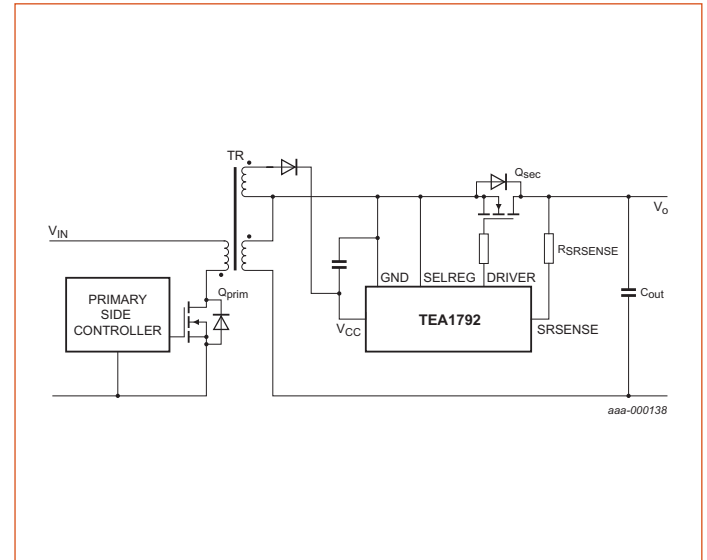
## Ordering information

Type number	Package		
	Name	Description	Version
TEA1792T/N1	SO8	Plastic small outline package; 8 leads; body width 3.9 mm	SOT96-1
TEA1792TS/N1	TSOP6	Plastic surface-mounted package; 6 leads	SOT457-1

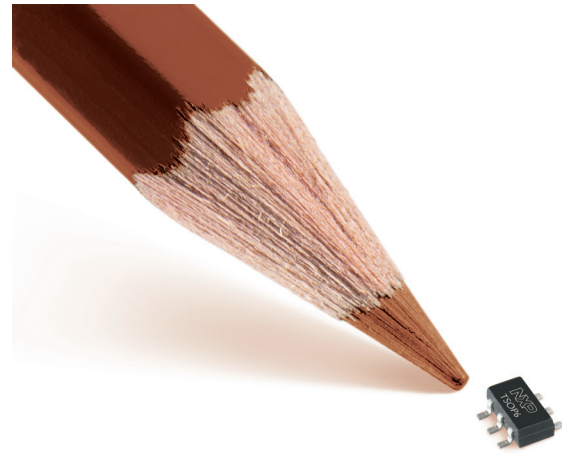
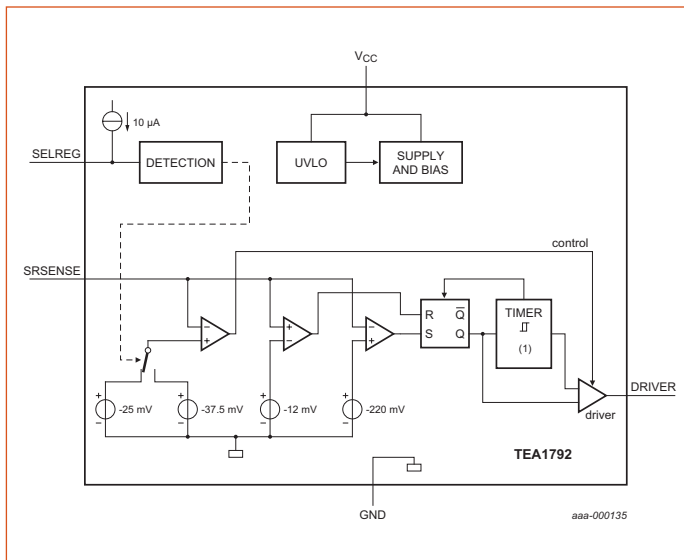
## Low-side rectification using the TEA1792



## High-side rectification using the TEA1792



## TEA1792 block diagram



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