### Buck Converter
A “buck” or “step-down” takes a higher input voltage and converts it to a lower output voltage.

### Boost Converter
A “boost” or “step-up” takes a lower input voltage and converts it to a higher output voltage.

### Linear Driver
A “linear driver” generates a fixed current that varies slightly with changes in voltage.
Continuous Mode Buck Converter
6 to 40VDC

**IS31LT3350** - 750mA Buck w/ Integrated Switch

**IS31LT3353** - 1A Buck w/ Integrated Switch

**Features**
- 750mA output current with 5% accuracy [IS31LT3350]
- 1A output current with 3% accuracy [IS31LT3353]
- 1MHz switching frequency with 95% efficiency
- Integrated 40V power MOS switch
- Single pin ON/OFF and brightness control using Linear or PWM
- Up to 1200 : 1 dimming ratio
- Open and short LED, thermal shutdown protection

**Applications**
- MR16 LED spotlight
- LED Streetlamp, wall-washer, decorative lighting
- Automobile LED decorative lights

**IS31LT3360** - 1.2A Buck w/ Integrated Switch

**Features**
- Up to 1.2A output current with 3% accuracy
- 1MHz switching frequency with 98% efficiency
- Integrated 40V power MOS switch
- Single pin ON/OFF and brightness control using Linear or PWM
- Up to 1200 : 1 dimming ratio
- Open and short LED, thermal shutdown protection
- Temperature Ranges: S3: -40°C to +105°C, S4: -40°C to +125°C

**Applications**
- MR16 LED spotlight
- LED Streetlamp, wall-washer, decorative lighting
- Automobile LED decorative lights
IS31LT3354 - Buck w/ External Switch

**Features**
- Up to 2A output current only limited by external component selection
- 1MHz switching frequency with 98% efficiency
- Up to 1200:1 dimming ratio
- Open and short LED, thermal shutdown protection
- Single pin ON/OFF and brightness control using DC voltage or PWM

**Applications**
- MR16 LED Spot Lighting
- LED Street Lamp
- Decorative Lighting

IS31LT3352 - 750mA Buck w/ Temperature Compensation

**Features**
- Cascadable temperature compensation
- Integrated 40V power MOS switch
- 750mA output current with 5% accuracy
- 1MHz switching frequency with 95% efficiency
- Up to 1200:1 dimming ratio
- Accepts either DC or PWM dimming input signal

**Applications**
- MR16 LED Spot Lighting
- LED Street Lamp
- Decorative Lighting
IS31LT3953 - 3A Buck w/ Integrated Switch

**Features**
- 4.5V to 48V input
- Up to 3A output current
- Cycle-by-cycle current limit
- Single pin ON/OFF and brightness control using Linear or PWM
- Robust protection against:
  - Adjacent pin-to-pin short
  - Pin-to-GND short
  - Component open/short faults
- Low power shutdown (1 μA typical)

**IS31LT3380 - 1.2A Buck w/ Switch Dimming**

**Features**
- 40V/1.2A output current with 5% accuracy
- 1MHz switching frequency with 98% efficiency
- Integrated 40V power switch for decreased parts count
- Multimodes switch dimming
- Use ordinary power switch with existing wiring and fixtures
- Open and short LED, thermal shutdown protection

<table>
<thead>
<tr>
<th>DIM1</th>
<th>DIM2</th>
<th>DIM LEVELS*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Floating</td>
<td>Floating</td>
<td>No Dimming</td>
</tr>
<tr>
<td>Floating</td>
<td>GND</td>
<td>100%-50%-20%</td>
</tr>
<tr>
<td>GND</td>
<td>Floating</td>
<td>100%-60%-30%</td>
</tr>
<tr>
<td>GND</td>
<td>GND</td>
<td>100%-30%</td>
</tr>
</tbody>
</table>

* Switch ON/OFF cycles the DIM Ratio
IS31LT3505 - 1A Boost w/ Integrated Switch
Features
- 6V to 30V supply voltage
- Boost output up to 35V
- Output current up to 1A
- PWM dimming control
- 1MHz switching frequency with 90% efficiency
- Integrated 35V power switch
- Internal soft start
- Open-circuit LED thermal shutdown protection

IS31LT3948 - Boost w/ PFM Mode
Features
- Wide input voltage range: 5V-100V
- Constant Current Output limited only by external component selection
- Automatically adjust boost output for constant Load current
- No loop compensation required
- Internal over-voltage protection
- Internal over-temperature protection
- Extended temp range: -40 to 125°C
**IS31LT3515**- Buck, Boost or Buck-boost Topology

**Features**

- 5V to 35V supply voltage
- Buck, Boost or Buck-boost operation
- External resistor sets operating frequency up to 500Khz
- Gate clamp voltage to drive low cost MOSFET
- Easy dimming: Analog or PWM
- Internal soft start
- Protections:
  - Over voltage
  - Short circuit
  - Under voltage
  - Over Temperature
**IS31LT3935 - TRIAC Dimming**

**Features**

- Smooth 0-100% flicker-free dimming range
- Compatibility with most TRIAC Dimmers (Digital, Leading and Trailing-edge)
- Integrated near unity Power Factor Correction Power Factor = 0.99 at 13W output
- Low component count
- Low 500μA quiescent current with soft start
- Spread Spectrum switching for reduced EMI
- Efficiency: 87% from 120Vrms to 39VDC
**IS31LT3918** - Switch and 3-level Dimming

**Features**
- Wide input range from 6VDC to 450DC or 85VAC to 265VAC
- 92% efficiency with 3% output current accuracy
- Linear, PWM or switch dimming capability
- Use ordinary power switch with existing wiring and fixtures
- Over current, voltage and temp protection
- Requires few external components
- Non-isolated Design

For both IS31LT3918 and IS31LT3938

**IS31LT3938** - Switch and 3-level Dimming

**Features**
- Wide input voltage range: 10VDC~450VDC or 85Vac~265Vac
- High efficiency with 3% output current accuracy
- High MOS gate drive voltage
- Linear, PWM or switch dimming
- User configurable power sequencing levels
- Over current, temperature and short circuit protection
- Use ordinary power switch with existing wiring and fixtures
IS31LT3916 - Flyback, Buck-boost Isolated LED Driver with Integrated PFC

Features
- Active Power Factor Correction to > 0.95
- 5% typical current accuracy up to 1A
- No loop compensation required
- Wide input voltage range: 90V to 260VAC
- Isolated and non-isolated design
- Internal over-temperature protection
- Primary side OCP
- Overvoltage Protection

IS31LT3932 - True Constant Current

Features
- Universal Input Voltage: 85~265Vac
- Configurable for fly-back, buck-boost or buck topology
- ± 5% line regulation and load regulation
- Constant LED current with ± 3% accuracy
- Integrated near unity Power Factor Correction
- Low 15μA startup current with soft start
- MOSFET valley turn-on [Buck] and high gate drive
- Integrated protections
  - No Load and open feedback protection
  - UVLO, OCP, OVP and OTP protections
AC/DC Buck or Isolated

IS31LT3933 - HIGH PF LOW THD UNIVERSAL LED DRIVER

Features

- Universal isolation and non-isolation
- Single stage PFC fly-back
- Low THD w/ no loop compensation required
- No opto-coupler required
- ±5% LED current accuracy
- ±3% line regulation
- ±3% load regulation
- Wide input voltage: 85~305VAC
- Low start-up current (15uA)
- Few external components
- UVLO, OCP, OVP and OTP protections
- SOP-8 package
**Boost + Linear Driver**

**IS31LT3552 - Two Channel Boost**

Features
- 2 current sinks adjustable 40 to 360mA
  - String-to-string current matching of 1.5%
  - High contrast ratio
  - External PWM dimming
- Input voltage range: 4.5V to 33V
- Operating frequency: 100kHz to 1MHz
- Protections for: OCP, OTP, UVLO, LED open/short, programmable OVP

**IS31LT3554 - Four Channel Boost**

Features
- 4 current sinks adjustable 20 to 180mA
  - String-to-string current matching of 1.5%
  - High contrast ratio
  - External PWM dimming
- Input voltage range: 4.5V to 33V
- Operating frequency: 100kHz to 1MHz
- Protections for: OCP, OTP, UVLO, LED open/short, programmable OVP
IS31LT3135 - Main/Aux Dual Channel LED Driver with Automatic Switchover

Features
- Optimized for battery powered & Mining lamp applications
- Intelligent Battery undervoltage detect
- Sparkless Manual or Auto switch from Main to Aux LED
- Over-temperature and short circuit protection
- Main/Aux channel current set by external resistors
- Low IC quiescent current less than 300uA

IS31LT3117 - 4-Channel CCR

Features
- Four 350mA channels, 1.4A total output
- Current matching 3% between channels
- Thermal current regulation above 130°C
- PWM dimming and Shutdown control input
- VREF 2.5V output to drive external standoff BJTs for high voltage/current operation
- Low IC quiescent current less than 100uA
- PWM frequency up to 100KHz
**Linear Driver**

**IS31LT3170 - 10-to-150mA CCR**

**Features**

- Adjustable continuous output current up to 150 mA with an external resistor on ADJ pin
- LED drive current preset to 10 mA
- Supply voltage up to 42V
- Low or high side current control
- Negative thermal coefficient of -0.2 %/K reduces output current at higher temperatures
- SOT23-6 package

**IS31LT3171 - 10-to-150mA CCR with PWM**

**Features**

- EN pin for up to 10kHz PWM
- Adjustable continuous output current up to 150 mA with an external resistor on ADJ pin
- LED drive current preset to 10 mA
- Supply voltage up to 42V
- Low or high side current control
- Negative thermal coefficient of -0.2 %/K reduces output current at higher temperatures
- SOT23-6 package
**IS32LT3120** - Dual Channel CCR with Fade IN/OUT

**Features**

- Input voltage range: 5V to 45V
- Dual output channels can source up to 200mA
- Independent ON/OFF button control for each channel - debounced inputs
- Programmable functions with external resistor
  - Set gamma corrected fade IN/OUT speed
  - Set channel current
- Protections for LED string short to GND, over temperature
- Automotive AEC-Q100 Qualified (Pending)

**IS32LT3180** - Eight Channel, Dual Intensity CCR

**Features**

- 6V-50V voltage input with load dump protection
- Eight channel CCR for automotive rear tail light
- Output current programmable from 10mA to 75mA
- Tail duty cycle programmable from 1% to 95%
- Low dropout voltage of 0.5V for minimal power dissipation
- Dual function /PWM input selects between DC output and PWM
- Output over temperature current reduction
- Automotive AEC-Q100 Qualified (Pending)
**IS32LT3170 - 10-to-150mA CCR**

Features
- Adjustable continuous output current up to 150 mA with an external resistor on ADJ pin
- LED drive current preset to 10 mA
- Supply voltage up to 42V
- Low or high side current control
- Negative thermal coefficient of -0.2%/K reduces output current at higher temperatures
- SOT23-6 package
- Automotive AEC-Q100 Qualified (Pending)

**IS32LT3171 - 10-to-150mA CCR with PWM**

Features
- EN pin for up to 10kHz PWM
- Adjustable continuous output current up to 150 mA with an external resistor on ADJ pin
- LED drive current preset to 10 mA
- Supply voltage up to 42V
- Low or high side current control
- Negative thermal coefficient of -0.2 %/K reduces output current at higher temperatures
- SOT23-6 package
- Automotive AEC-Q100 Qualified (Pending)
**IS32LT3172** - 10-to-200mA CCR

**Features**
- Low-side current sink
  - Current preset to 10mA
- Adjustable from 10mA to 200mA with external resistor selection
- Wide input voltage range from
  - 5V to 42V (IS32LT3172)
  - with a low dropout of 0.5V
- Protection features:
  - 0.2%/K negative temperature coefficient for thermal protection
  - Open circuit and over voltage protection
- SOP-8EP package
- RoHS compliant [Pb-free] package
- Automotive AECQ-100 qualified (pending)

**IS32LT3173** - 10-to-200mA CCR with PWM

**Features**
- Low-side current sink
  - Current preset to 10mA
  - Adjustable from 10mA to 200mA with external resistor selection
- Wide input voltage range from
  - -2.8V to 42V (IS32LT3173)
- with a low dropout of 0.5V
- Up to 10kHz PWM input
- Protection features:
  - -0.2%/K negative temperature coefficient for thermal protection
  - Open circuit and over voltage protection
- SOP-EP8 package
- RoHS compliant [Pb-free] package
- Automotive AECQ-100 qualified (pending)
Automotive Boost Backlight Driver

**IS32BL3552 - Two Channel Boost**

Features
- 2 current sinks adjustable 40 to 360mA
  - String-to-string current matching of 1.5%
  - High contrast ratio
  - External PWM dimming
- Input voltage range: 4.5V to 33V
- Operating frequency: 100kHz to 1MHz
- Protections for: OCP, OTP, UVLO, LED open/short, programmable OVP
- Automotive AEC-Q100 Qualified

**IS32BL3554 - Four Channel Boost**

Features
- 4 current sinks adjustable 20 to 180mA
  - String-to-string current matching of 1.5%
  - High contrast ratio
  - External PWM dimming
- Input voltage range: 4.5V to 33V
- Operating frequency: 100kHz to 1MHz
- Protections for: OCP, OTP, UVLO, LED open/short, programmable OVP
- Automotive AEC-Q100 Qualified
Automotive Boost Backlight Driver

**IS32BL3556 - Four Channel Boost**

**Features**

- 4 current sinks adjustable up to 100mA
- String-to-string current matching of 0.8%
- High contrast ratio
- External PWM dimming
- Input voltage range: 4.75V to 40V
- Integrated Power MOSFET
- Operating frequency up to 2.3MHz
- Synchronize capable
- Protections for: OCP, OTP, UVLO, LED open/short, programmable OVP
- Provide driver for external PMOS input disconnect switch
- Automotive AEC-Q100 Qualified [Pending]
Automotive DC/DC Buck

**IS32LT3953 - 3A Buck w/ Integrated Switch**

**Features**

- Up to 3A output current
- Cycle-by-cycle current limit
- Single pin ON/OFF and brightness control using Linear or PWM
- Robust protection against:
  - Adjacent pin-to-pin short
  - Pin-to-GND short
  - Component open/short faults
- Low power shutdown (1 mA typical)
- Automotive AEC-Q100 Qualified [Pending]
## Product Selector Guide

### Switching (AC/DC & DC/DC)

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Driver</th>
<th>VIN (V)</th>
<th>IOUT (mA)</th>
<th>Effcy (%)</th>
<th>Power Transistor</th>
<th>Typical Applications</th>
<th>Package</th>
<th>Key Feature</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>IS31LT3350</td>
<td>DC/DC</td>
<td>6-40</td>
<td>750mA ±5%</td>
<td>95</td>
<td>Built-in</td>
<td>Low voltage LED lighting, MR16 replacement</td>
<td>SOT23-5, SOT89-5</td>
<td>Single pin ON/OFF or brightness control with DC/PWM, thermal shutdown</td>
<td>Prod</td>
</tr>
<tr>
<td>IS31LT3352</td>
<td>DC/DC</td>
<td>6-40</td>
<td>750mA ±5%</td>
<td>95</td>
<td>Built-in</td>
<td>Low voltage LED lighting, MR16 replacement</td>
<td>SOP-8</td>
<td>Cascadable, temp. compensation and one pin ON/OFF/dimming control</td>
<td>Prod</td>
</tr>
<tr>
<td>IS31LT3353</td>
<td>DC/DC</td>
<td>6-40</td>
<td>&lt; 2.5A ±3%</td>
<td>98</td>
<td>External</td>
<td>Low volt. LED lighting, illuminated sign</td>
<td>SOT23-5, SOT89-5</td>
<td>Single pin ON/OFF or brightness control with DC/PWM, thermal shutdown</td>
<td>Prod</td>
</tr>
<tr>
<td>IS31LT3354</td>
<td>DC/DC</td>
<td>6-40</td>
<td>±3%</td>
<td>90</td>
<td>External</td>
<td>Industrial, street lighting</td>
<td>SOP-16</td>
<td>1200:1 dimming ratio LED driver with thermal shutdown protection</td>
<td>Prod</td>
</tr>
<tr>
<td>IS31LT3360*</td>
<td>DC/DC</td>
<td>6-40</td>
<td>1.2A ±3%</td>
<td>98</td>
<td>Built-in</td>
<td>MR16, MR11 spot light, PAR light</td>
<td>SOP8-9</td>
<td>High efficiency with buck converter, with analog or PWM dimming</td>
<td>Prod</td>
</tr>
<tr>
<td>IS31LT3380</td>
<td>DC/DC</td>
<td>8.5-40</td>
<td>1.2A ±5%</td>
<td>98</td>
<td>Built-in</td>
<td>MR16, MR11 spot light, PAR light</td>
<td>SOP-8</td>
<td>3-level switch dimming control, open/short and thermal shutdown protection</td>
<td>Prod</td>
</tr>
<tr>
<td>IS31LT3505</td>
<td>DC/DC</td>
<td>6-30</td>
<td>24W ±5%</td>
<td>90</td>
<td>Built-in</td>
<td>Battery powered LED, solar light</td>
<td>MSOP-10</td>
<td>1MHz Boost Converter with 30V Internal NMOS</td>
<td>Prod</td>
</tr>
<tr>
<td>IS31LT3515</td>
<td>DC/DC</td>
<td>5-35</td>
<td>±3%</td>
<td>90</td>
<td>External</td>
<td>Industrial, street lighting</td>
<td>SOP-16</td>
<td>35V Buck/Boost, Buck/Boost operation</td>
<td>S=Q2/15</td>
</tr>
<tr>
<td>IS31LT3948</td>
<td>DC/DC</td>
<td>5-100</td>
<td>-</td>
<td>90</td>
<td>External</td>
<td>Street lamp. LED lighting, Gen. illum.</td>
<td>SOP-8</td>
<td>Wide input voltage range, Boost, over-voltage/temperature protection</td>
<td>Prod</td>
</tr>
<tr>
<td>IS31LT3910</td>
<td>AC/DC</td>
<td>8-450</td>
<td>500mA ±7%</td>
<td>90</td>
<td>External</td>
<td>T8, PAR light</td>
<td>SOP-8</td>
<td>Non-isolation, linear/PWM dimming, temperature compensation</td>
<td>Prod</td>
</tr>
<tr>
<td>IS31LT3916</td>
<td>AC/DC</td>
<td>90-260</td>
<td>PF &lt; 0.9</td>
<td>85</td>
<td>External</td>
<td>T8, Bulb Replacement, PAR light</td>
<td>MSOP-8</td>
<td>Isolated and Non-Isolated; Offline LED Driver with Active PFC</td>
<td>Prod</td>
</tr>
<tr>
<td>IS31LT3953</td>
<td>DC/DC</td>
<td>6-48V</td>
<td>-</td>
<td>Integrated</td>
<td>3PWM Dimmable Lighting</td>
<td>SOP-8EP</td>
<td>200kHz to 2Mhz DC/DC 3.0A Dimmable buck regulator with robust protection features</td>
<td>S=Q2/15</td>
<td></td>
</tr>
</tbody>
</table>

### Switching (AC/DC & DC/DC)

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Driver</th>
<th>VIN (V)</th>
<th>IOUT (mA)</th>
<th>Effcy (%)</th>
<th>Power Transistor</th>
<th>Typical Applications</th>
<th>Package</th>
<th>Key Feature</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>IS31LT3918</td>
<td>DC/DC</td>
<td>6-450</td>
<td>85-265 AC</td>
<td>±3%</td>
<td>External</td>
<td>LED Lighting; Signal &amp; decor. lighting, T8</td>
<td>SOP-8</td>
<td>High voltage LED driver with 3-level Switch Dimming</td>
<td>Prod</td>
</tr>
<tr>
<td>IS31LT3932</td>
<td>AC/DC</td>
<td>85-265</td>
<td>PF &gt; 0.95</td>
<td>&gt;85</td>
<td>External</td>
<td>Retrofit Bulb, Tube, PAR Lighting</td>
<td>SOP-8</td>
<td>High Power factor, Low THD Universal Constant Current</td>
<td>Prod</td>
</tr>
<tr>
<td>IS31LT3933</td>
<td>AC/DC</td>
<td>85-305</td>
<td>PF &gt; 0.95</td>
<td>&gt;85</td>
<td>External</td>
<td>Retrofit Bulb, Tube, PAR Lighting</td>
<td>SOP-8</td>
<td>High Power factor, Low THD Universal Constant Current</td>
<td>S=Q1/15</td>
</tr>
<tr>
<td>IS31LT3935</td>
<td>AC/DC</td>
<td>110/220</td>
<td>PF &gt; 0.95</td>
<td>87</td>
<td>External</td>
<td>Bulb Replacement, spot light, PAR light</td>
<td>DFN10-eTSSOP-16</td>
<td>25W Triac Dimmable Active PF Isolated and Non-Isolated</td>
<td>Prod</td>
</tr>
<tr>
<td>IS31LT3938</td>
<td>DC/AC/ DC/AC/ DC/DC</td>
<td>10-450 DC 85-265 AC</td>
<td>±3%</td>
<td>95</td>
<td>External</td>
<td>LED Lighting; Signal &amp; decorative lighting</td>
<td>SOP-8</td>
<td>High voltage LED driver with Switch Dimming, Single External FET</td>
<td>Prod</td>
</tr>
</tbody>
</table>

* -40°C to +125°C Extended Temperature range option available
### Automotive (Industrial)

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Driver</th>
<th>VIN [V]</th>
<th>IOUT Accuracy</th>
<th>Power Transistor</th>
<th>Typical Applications</th>
<th>Package</th>
<th>Key Feature</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>IS32BL3552</td>
<td>DC/DC</td>
<td>4.5 - 33V</td>
<td>±1.5%</td>
<td>External</td>
<td>Automotive lighting, LCD display backlight</td>
<td>eTSSOP-16</td>
<td>Two channel LED current sinks, 40 to 360mA per string. String-to-string accuracy 1.5%</td>
<td>AECQ100 qualified</td>
</tr>
<tr>
<td>IS32BL3554</td>
<td>DC/DC</td>
<td>4.5 - 33V</td>
<td>±1.5%</td>
<td>External</td>
<td>Automotive lighting, LCD display backlight</td>
<td>eTSSOP-16</td>
<td>Four 20 to 180mA channel current sinks. String-to-string accuracy 1.5%</td>
<td>AECQ100 qualified</td>
</tr>
<tr>
<td>IS32BL3556</td>
<td>DC/DC</td>
<td>4.75 - 40V</td>
<td>±0.8%</td>
<td>External</td>
<td>Automotive lighting, LCD monitor backlight</td>
<td>eTSSOP-24</td>
<td>Four 100mA channel current sinks. String-to-string accuracy 0.8%</td>
<td>S=Q2/15</td>
</tr>
<tr>
<td>IS32LT3953</td>
<td>DC/DC</td>
<td>6 - 48V</td>
<td>-</td>
<td>Integrated</td>
<td>Automotive lighting, dimmable cabin light</td>
<td>SOP-8EP</td>
<td>Two channel CCR with two debounced switch inputs, LED fade IN/OUT</td>
<td>S=Q2/15</td>
</tr>
<tr>
<td>IS32LT3120</td>
<td>Linear</td>
<td>5 - 45V</td>
<td>-</td>
<td>Integrated</td>
<td>Automotive cabin lighting, map &amp; dome light</td>
<td>SOP-BEP</td>
<td>Adjustable CCR 10 to 150mA, negative thermal coeff., low / high side, IS32LT3171 PWM dimming</td>
<td>Sample</td>
</tr>
<tr>
<td>IS32LT3170/1</td>
<td>Linear</td>
<td>2.8 - 42V</td>
<td>-</td>
<td>Integrated</td>
<td>Automotive lighting, emergency lighting, retail lighting</td>
<td>SOT23-6</td>
<td>Adjustable CCR 10 to 200mA, negative thermal coeff., low / high side, IS32LT3173 PWM dimming</td>
<td>S=Q2/15</td>
</tr>
<tr>
<td>IS32LT3172/3</td>
<td>Linear</td>
<td>2.8 - 42V</td>
<td>-</td>
<td>Integrated</td>
<td>Automotive cabin lighting, map &amp; dome light</td>
<td>SOP-BEP</td>
<td>Adjustable CCR 10 to 200mA, negative thermal coeff., low / high side, IS32LT3173 PWM dimming</td>
<td>S=Q2/15</td>
</tr>
<tr>
<td>IS32LT3180</td>
<td>Linear</td>
<td>6 - 60V</td>
<td>±5.0%</td>
<td>Integrated</td>
<td>Automotive RCL, CHMSL, fog lamps, turn signal</td>
<td>eTSSOP-16</td>
<td>Eight channel, dual intensity, CCR with fault reporting, 10-75mA</td>
<td>Sample</td>
</tr>
</tbody>
</table>

### Linear

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Driver</th>
<th>VIN [V]</th>
<th>IOUT Accuracy</th>
<th>Power Transistor</th>
<th>Typical Applications</th>
<th>Package</th>
<th>Key Feature</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>IS31LT3135</td>
<td>Constant Current</td>
<td>2.7-5.5</td>
<td>500mA ±5%</td>
<td>Built-in</td>
<td>Miner lamp, Torch, Battery powered LED lighting</td>
<td>SOP-8</td>
<td>Main/sub dual-channel driver with short circuit and over temp. protection</td>
<td>Prod</td>
</tr>
<tr>
<td>IS31LT3117</td>
<td>Linear</td>
<td>6 - 53V</td>
<td>±5.0%</td>
<td>Integrated</td>
<td>Low-side CCR</td>
<td>eTSSOP-16</td>
<td>Four 350 mA channel current sinks. Support for external ballast transistor</td>
<td>Prod</td>
</tr>
<tr>
<td>IS31LT3170/1</td>
<td>Linear</td>
<td>2.8 - 42V</td>
<td>-</td>
<td>Integrated</td>
<td>Emergency lighting, retail lighting</td>
<td>SOT23-6</td>
<td>Adjustable CCR 10 to 150mA, negative thermal coeff., low / high side, IS31LT3171 PWM dimming</td>
<td>S=Q2/15</td>
</tr>
<tr>
<td>IS31LT3172/3</td>
<td>Linear</td>
<td>2.8 - 42V</td>
<td>-</td>
<td>Integrated</td>
<td>Emergency lighting, retail lighting</td>
<td>SOP-BEP</td>
<td>Adjustable CCR 10 to 200mA, negative thermal coeff., low / high side, IS31LT3173 PWM dimming</td>
<td>S=Q2/15</td>
</tr>
</tbody>
</table>

### Evaluation Boards

- **Device**: IS31LT3135
  - **Evaluation Board**: IS31LT3135-V1GRLS2-EB
  - **Description**: Dual Ch. - 1.17V

- **Device**: IS31LT3350
  - **Evaluation Board**: IS31LT3350-V1DSLS2-EB3CH
  - **Description**: 3CH

- **Device**: IS31LT3354
  - **Evaluation Board**: IS31LT3354_STLS2_EBDCDC
  - **Description**: AC Input

- **Device**: IS31LT3360
  - **Evaluation Board**: IS31LT3360-SDL53-EBMR16, IS31LT3360-SDL53-EBAIC
  - **Description**: MR16, AIC

- **Device**: IS31LT3380
  - **Evaluation Board**: IS31LT3380_GRLS2_EBMR16
  - **Description**: 1.2A MR16

- **Device**: IS31LT3505
  - **Evaluation Board**: IS31LT3505-SLS2-EBDC
  - **Description**: Constant Current

- **Device**: IS31LT3910
  - **Evaluation Board**: IS31LT3910_T8_EB
  - **Description**: T8 Evaluation Board

- **Device**: IS31LT3916
  - **Evaluation Board**: IS31LT3916_EB_T8SO_V01A, IS31LT3916_EB_BULB_V01A
  - **Description**: T8 Isolated Bulb

- **Device**: IS31LT3918
  - **Evaluation Board**: IS31LT3918_GRLS2_EBT8
  - **Description**: T8

- **Device**: IS31LT3932
  - **Evaluation Board**: IS31LT3932_GRLS2-EBULLB
  - **Description**: 10LEDLoad

- **Device**: IS31LT3935
  - **Evaluation Board**: IS31LT3935-EBBULB-ISO110
  - **Description**: A19

- **Device**: IS31LT3938
  - **Evaluation Board**: IS31LT3938_GRLS2-EBULLB, IS31LT3938_GRLS2-EBT8
  - **Description**: Bulb T8

- **Device**: IS31LT3948
  - **Evaluation Board**: IS31LT3948_GRLS2-EBAC
  - **Description**: General
Part Decoder

Ordering Information

- **Analog Product Family**
  - 31 = Analog and Mixed Signal
  - 32 = Automotive Analog and Mixed Signal

- **Product Type**
  - AP = Audio Power Amplifier
  - BL = White LED Driver for LCD Backlight
  - FL = FxLED Driver
  - LT = Lighting LED Driver

- **Temperature Grade**
  - S1 = Commercial (0ºC to 70ºC)
  - S2 = Industrial temp. (-40ºC to 85ºC)
  - S3 = Industrial temp. (-40ºC to 105ºC)
  - S4 = Industrial temp. (-40ºC to 125ºC)
  - A1 = Automotive Grade (-40ºC to +85ºC)
  - A2 = Automotive Grade (-40ºC to +105ºC)
  - A3 = Automotive temp. (-40 to 125ºC)

- **Solder Type**
  - Blank = Sn/Pb
  - L = Lead-free (RoHS Compliant)

- **Package Type**
  - C = WCSP
  - D = DFN
  - GR = SOP
  - QF = QFN
  - S = MSOP
  - SD = SOT89
  - ST = SOT23
  - TT = TSOT23
  - UT = UTQFN
  - Z = TSSOP

- **Voltage Range / Parameters**
  - Sense Voltage Range
    - V1 = 91mV to 101mV
    - V2 = 99mV to 110mV
  - Under-Voltage Range
    - V1 = 1.13V to 1.21V
    - V2 = 1.19V to 1.26V