

ON SEMICONDUCTOR LED Drivers

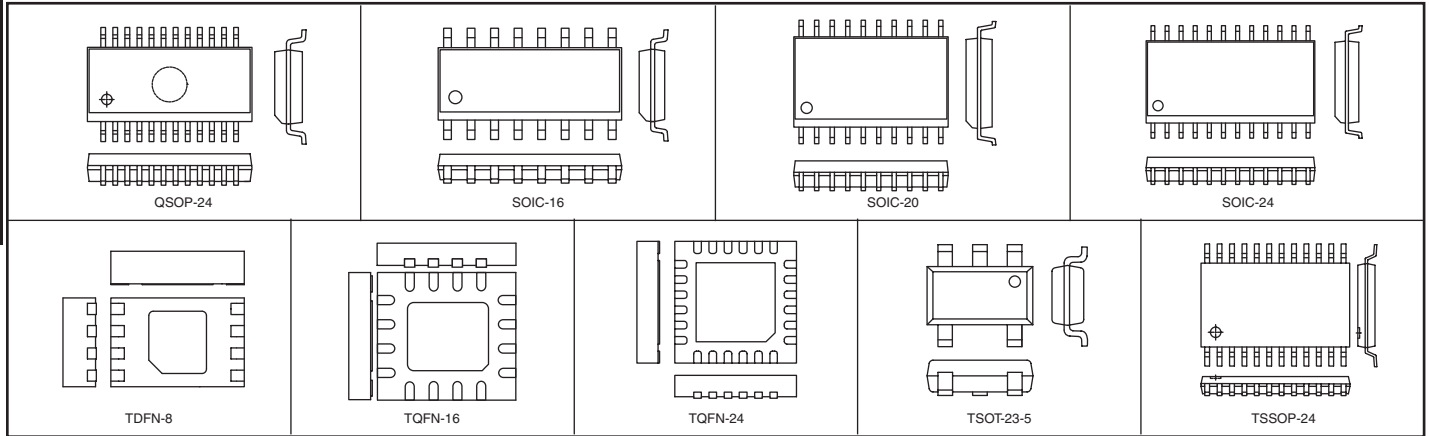
ON Semiconductor®



This product is RoHS compliant.

Opto Drivers

Catalyst



CATALYST CHARGE PUMP/PARALLEL CONFIGURATION

◆ Surface Mount Device

Fractional charge pumps with regulated output current

For quantities of 500 and up, call for quote.

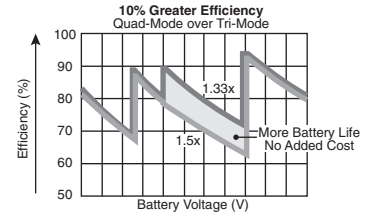
MOUSER STOCK NO.		Package Type	Input Voltage	LEDs	Total Output Current (Max)(mA)	Reset Control	Pump Modes	Dimming Interface	Junction Temperature Range (°C)	Price Each			
Mfr.	Mfr. Part No.									1	25	100	250
◆	698—CAT3606HV4	TQFN-16	2.7 - 5.5	6	30mA/LED	Yes	1x/1.5x	PWM	-40 to +85	1.60	1.27	1.20	1.11
◆	698—CAT3626HV4	TQFN-16	2.7 - 5.5	6	32mA/LED	No	1x/1.5x	I2C	-40 to +150	2.88	2.56	2.24	2.00
◆	698—CAT3224HV3-GT2	TQFN16	2.5 - 5.0	4	200mA	Yes	-	-	-40 to +150	3.50	3.10	2.71	2.42

CATALYST QUAD-MODE™ CHARGE PUMP/PARALLEL CONFIGURATION

Fractional charge pumps with regulated output current

Catalyst Semiconductor's innovative, patented Quad-Mode™ charge pump switching architecture delivers high efficiency levels normally associated with inductive-based LED drivers, which eliminating the high-profile inductors and unwanted EMI. Most charge pump LED drivers today offer three modes of operation corresponding to the ratio of the output voltage to the input voltage: 1x, 1.5x and 2x. Catalyst's Quad-Mode™ architecture incorporates a fourth mode of operation, 1.33x, without the need for the additional capacitor required by all existing four-mode charge pumps. The 1.33x fractional operating mode also reduces the input switching currents seen at the battery, minimizing the oversupply noise - a critical parameter in devices such as cell phones.

Catalyst Quad-Mode™ LED Drivers deliver 10% greater efficiency compared to traditional charge pumps, extending battery life with no added cost or components.



◆ Surface Mount Device

For quantities of 500 and up, call for quote.

MOUSER STOCK NO.		Package Type	Input Voltage	LEDs	Total Output Current (Max)(mA)	Reset Control	Pump Modes	Dimming Interface	Junction Temperature Range (°C)	Price Each			
Mfr.	Mfr. Part No.									1	25	100	250
◆	698—CAT3604VHV4-G	TQFN-16	2.7 - 5.5	4	30mA/LED	Yes	1x/1.33x/1.5x/2x	PWM	-40 to +150	1.75	1.35	1.22	1.10
◆	698—CAT3643HV3	TQFN-16	2.2 - 5.5	3	30mA/LED	Yes	1x/1.33x/1.5x/2x	1-Wire (6 levels)	-40 to +150	1.12	.88	.84	.786

CATALYST INDUCTIVE BOOST/SERIAL CONFIGURATION

◆ Surface Mount Device

Low noise step-up LED drivers

For quantities of 500 and up, call for quote.

MOUSER STOCK NO.		Package Type	Input Voltage	LEDs	FB Pin Volt V _{RSET} (mV)	Switch Voltage (Max)(V)	Switch Current Limit (Typ)(mA)	Dimming Interface	Junction Temperature Range (°C)	Price Each			
Mfr.	Mfr. Part No.									1	25	100	250
◆	698—CAT377DI	TSOT-23-5	2.0 - 5.5	4	95	20	550	PWM	-40 to +85	1.20	.96	.897	.846
◆	698—CAT4137TD	TSOT-23-5	2.0 - 5.5	5	300	24	300	PWM	-40 to +150	1.44	1.15	1.08	1.01
◆	698—CAT4237TD	TSOT-23-5	2.0 - 5.5	8	300	34	450	PWM	-40 to +150	2.59	2.30	2.01	1.80
◆	698—CAT4238TDG	TSOT-23-5	2.0 - 5.5	10	300	38	450	PWM	-40 to +150	2.10	1.68	1.58	1.47
◆	698—CAT4139TD-G	TSOT-23-5	2.0 - 5.5	5	300	24	600 (Min)	PWM	-40 to +150	1.30	1.04	.975	.905
◆	698—CAT4240TD-G	TSOT-23-5	2.0 - 5.5	10	300	38	600 (Min)	PWM	-40 to +150	1.69	1.36	1.27	1.19

CATALYST LINEAR LED DRIVERS

◆ Surface Mount Device

Serial Interface Display Drivers

For quantities of 500 and up, call for quote.

MOUSER STOCK NO.		Package Type	Input Voltage	LEDs	Total Output Current (Max)(mA)	Dimming Interface	Junction Temperature Range (°C)	Price Each			
Mfr.	Mfr. Part No.							1	25	100	250
◆	698—CAT4008W	SOIC-16	3.0 - 5.5	8	100mA/LED	4-Wire	-40 to +150	1.75	1.35	1.22	1.10
◆	698—CAT4016W	SOIC-24	3.0 - 5.5	16	100mA/LED	4-Wire	-40 to +150	2.45	1.89	1.71	1.54
◆	698—CAT4016Y	TSSOP-24	3.0 - 5.5	16	100mA/LED	4-Wire	-40 to +150	2.07	1.59	1.44	1.29
◆	698—CAT4016VS	QSOP-24	3.0 - 5.5	16	100mA/LED	4-Wire	-40 to +150	2.80	2.15	1.93	1.63
◆	698—CAT4016HV6	TQFN-24	3.0 - 5.5	16	100mA/LED	4-Wire	-40 to +150	3.10	2.75	2.40	2.15
◆	698—CAT4101TV-T75	TO-263-5	3.0 - 5.5	17	100mA/LED	4-Wire	-40 to +150	3.46	3.07	2.68	2.40
◆	698—CAT4103V-GT2	SOIC-16	3.0 - 5.5	18	100mA/LED	4-Wire	-40 to +150	2.28	1.75	1.59	1.43
◆	698—CAT4109V-GT2	SOIC-16	3.0 - 5.5	19	100mA/LED	4-Wire	-40 to +150	2.28	1.75	1.59	1.43

CATALYST INDUCTIVE BUCK SERIES CONFIGURATION

◆ Surface Mount Device

High-Voltage, Step-Down Converter with Regulated Current Control

For quantities of 500 and up, call for quote.

MOUSER STOCK NO.		Package Type	Switching Voltage	LEDs	Total Output Current (Max)(mA)	Reset Control	Switch Frequency (kHz)	Dimming Interface	Junction Temperature Range (°C)	Price Each			
Mfr.	Mfr. Part No.									1	25	100	250
◆	698—CAT4201TD-G	TSOT-23-5	0 to 28	7	50mA/LED	Yes	50 to 1000	PWM	-40 to +150	1.80	1.44	1.35	1.26

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