



CT Micro
International Corporation



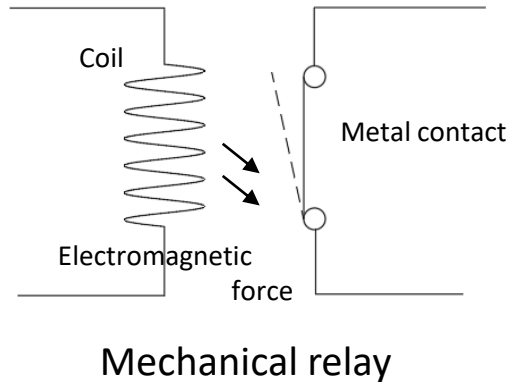
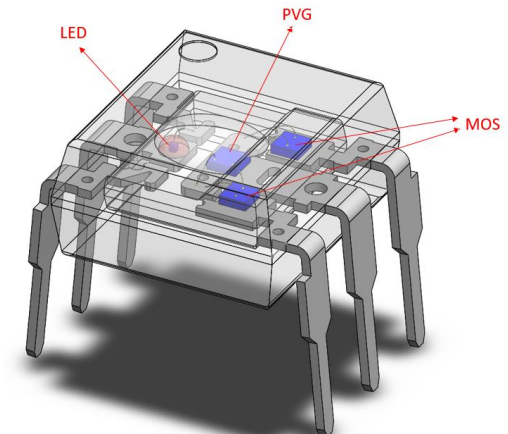
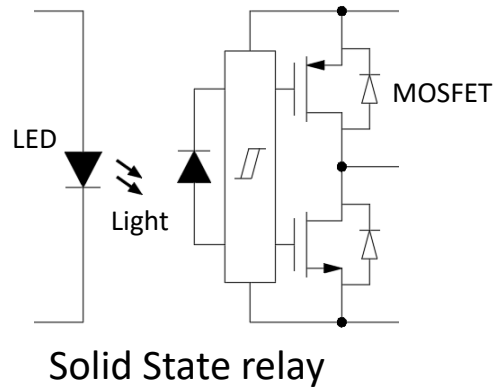
Opto Solid State Relay Product Info & Applications

Product Marketing
2026 V0

Opto Solid State Relay (SSR)

Advantage Compare to Mechanical Reed Relay

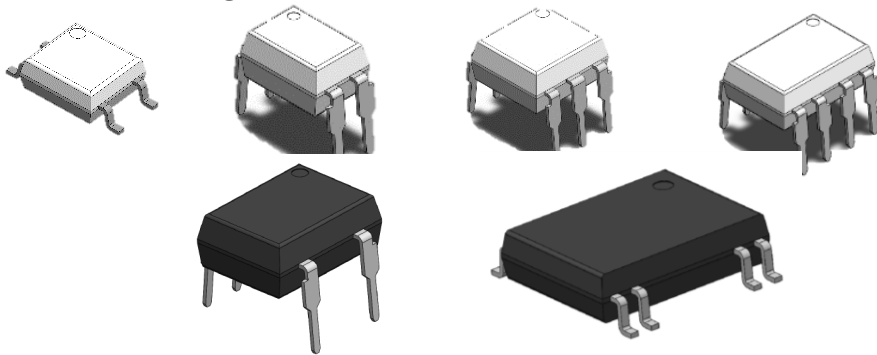
- Smaller
- Longer Life
- Higher Speed
- Lower Current Drive
- Silent Operation
- Vibration Proof



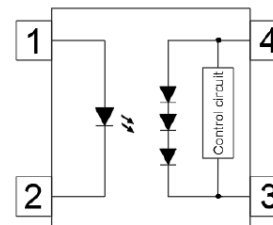
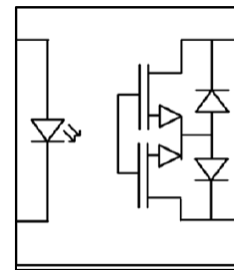
SSR/MOSFET Relay Product Family

Applications

- Replace traditional mechanical relays
- Factory automation
- Security system
- Battery Management System (BMS)
- Energy Storage
- Smart Meter
- EV Charger



2) Photovoltaic Generator (PVG) MOSFET driver



Break
Down
Voltage

CTR211
40V

CTR210
CTR212
60V

CTR215
100V

CTR218
250V

CTR214
400V

CTR216
600V

CTR217
700V

CTR258
1500V

1700V/
2000V
3300V/
4000V

NEW!!

Low
Ron

NEW!!

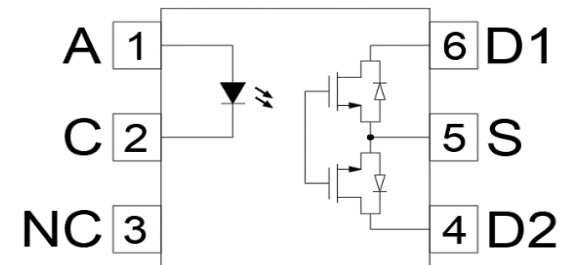
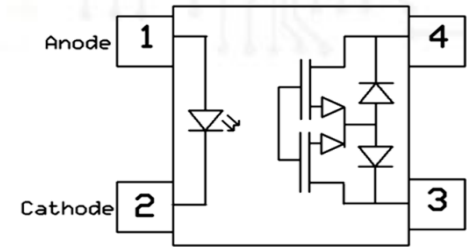
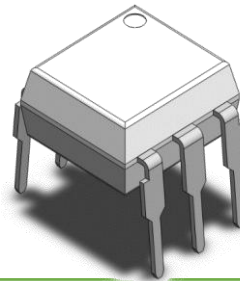
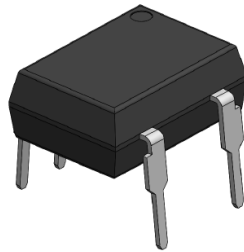
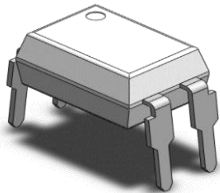
Low
Ron

In
Development

SSR/MOSFET Relay - 4PIN/6PIN

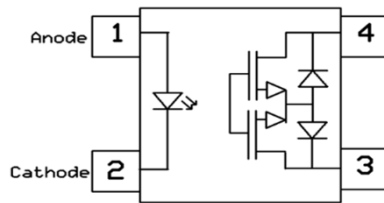
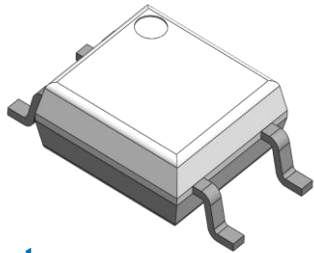
Features

- 1 Form A single relay
- High isolation 5000V
- 100V-1500V output withstand voltage
- Operating temperature range - 40 °C to 85 °C
- Halogen free



Part Number	Break Down Voltage (V)	Load Current (mA)	On Resistance typ.(Ω)	Turn on current Max. (mA)	TON/TOFF Typ. (ms)
CTR211-4L NEW!!	40	2000	0.25 Low Ron	3	1/0.2
CTR212-4L NEW!!	60	2000	0.4 Low Ron	3	1/0.2
CTR214-4L/6L	400	100	35	3	0.17/0.18
CTR214B-4L/6L	400	160	10	3	0.14/0.24
CTR215-4L/6L	100	500	0.6	3	1/0.3
CTR216-4L/6L	600	80	35	3	0.4/0.4
CTR258-6L	1500	30	200	3	1/0.5

SSR/MOSFET Relay – MFP/8PIN



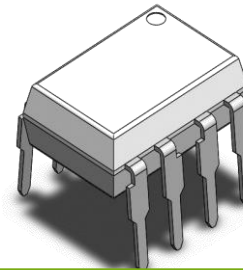
Features

MFP

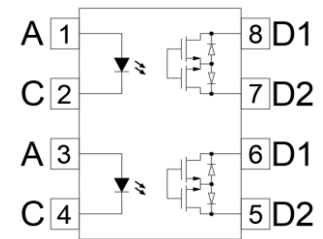
- 1 Form A single relay
- High isolation 3750V
- 100V-600V output withstand voltage
- Operating temperature range - 40 °C to 85 °C
- Halogen free

Features

- 2 independent 1 Form A single relay
- High isolation 5000V
- 100V-600V output withstand voltage
- Operating temperature range - 40 °C to 85 °C
- Halogen free



8PIN

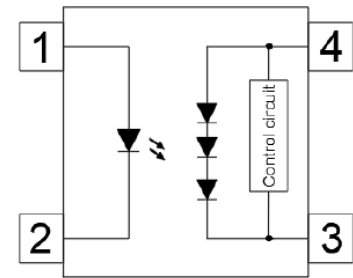
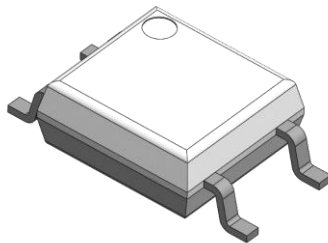


Part Number	Break Down Voltage (V)	Load Current (mA)	On Resistance typ.(Ω)	Turn on current Max. (mA)	TON/TOFF Typ. (ms)
CTR210-8L NEW!!	60	2000	0.08 Low Ron	3	5/1
CTR214-M4/8L	400	100	35	3	0.17/0.18
CTR214B-M4/8L	400	160	10	3	0.14/0.24
CTR215-M4/8L	100	500	0.6	3	1/0.3
CTR216-M4/8L	600	80	35	3	0.4/0.4
CTR218-M4	250	150	7	3	0.5/0.5

Photovoltaic Generator (PVG) MOSFET Driver

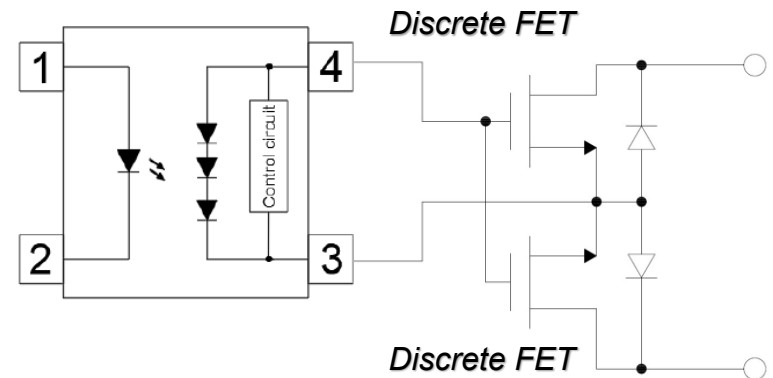
Features

- 1 Form A single relay
- High isolation 3750V
- Operating temperature range - 40 °C to 100 °C
- Halogen free



Part Number	Open Circuit Voltage VOC (V)	Short Circuit Current ISC(uA)	TON/ TOFF Typ. (us)
CT1271	7	6uA	50/30
CT1281	13.5V	8uA	50/50

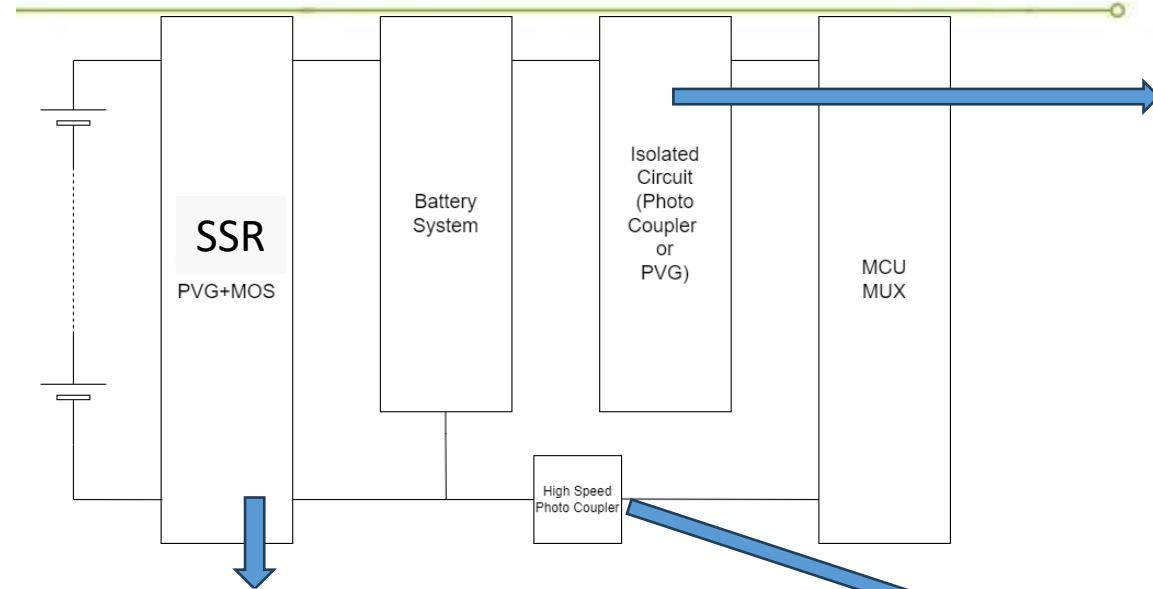
NEW!!



Typical Applications

- Insulation Detection
- BMS – Battery monitoring for BESS
- In-Rush Current Prevention:
 - Pre-Charge Circuit

Overall BMS



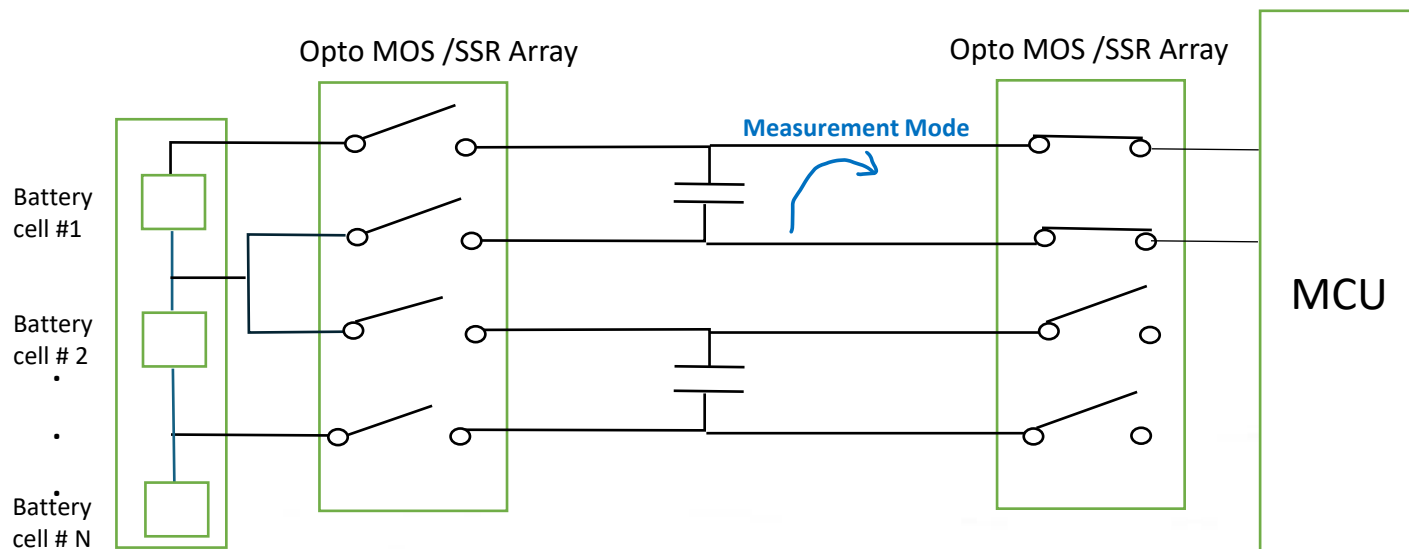
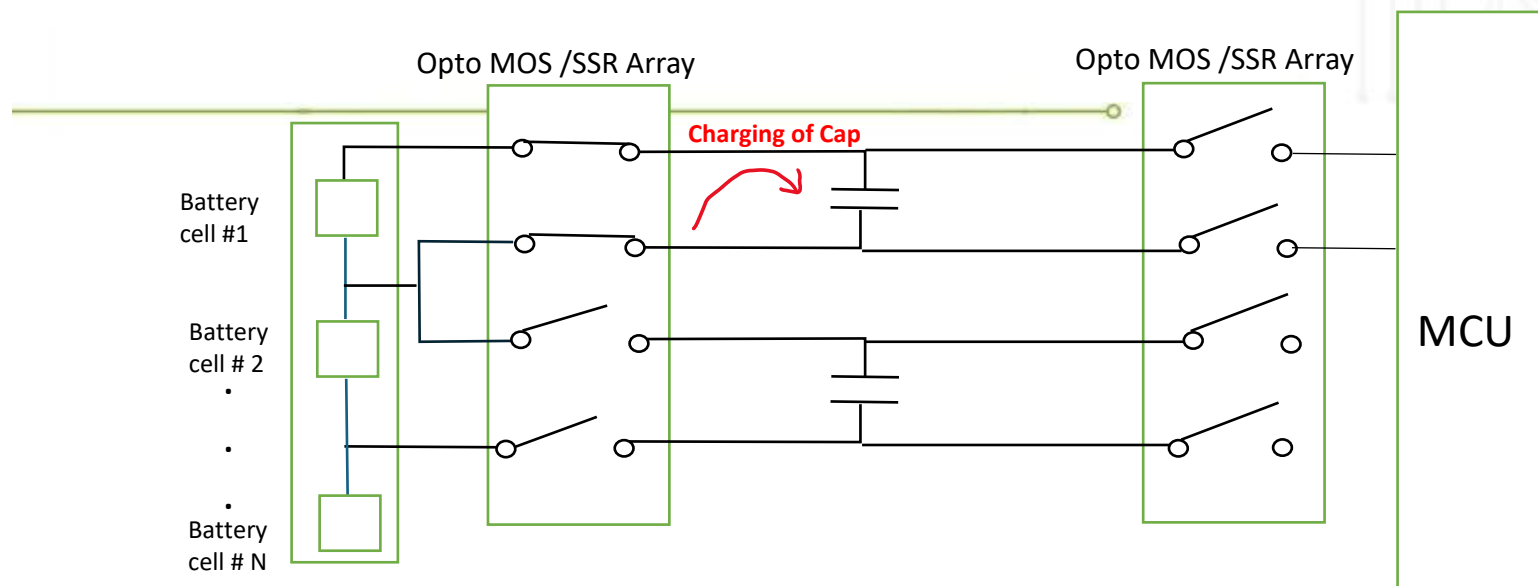
Transistor Photo Coupler	Package	Channel
CT357 series	MFP	1
CTH217 Series	Half pitch	1
CTH247 Series	Half pitch	4

PN	output voltage	on-state current	$R_{DS}(\Omega)$
CTR210/211	30~60V	1~1.2A	max 0.6
CTR215	80~100V	0.7~1A	max 0.6
CTR214	400V	100mA	max 50
CTR216	600V	80mA	max 50
CTR258	1500V	30mA	max 500
CT33R-J	2000V/3300 V	under development	

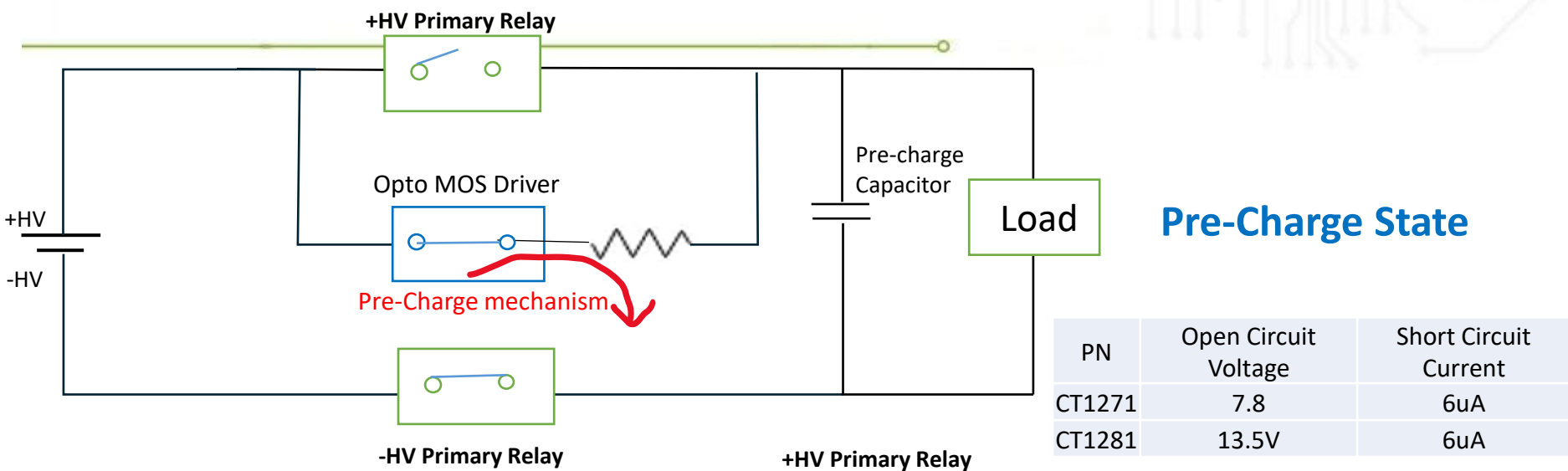
PVG	Open Circuit Voltage	Short Circuit Current
CT1271	7.8	6uA
CT1281	13.5V	6uA

Type	High Speed	package	Channel
Analog	1M	MFP-5L	1
		SDIP6	1
		8PIN	1
			2
		SO8	1
Digital	10M	MFP-5L	1
			1
		SDIP6	1
		8PIN	1
			2
		SO8	1
			2

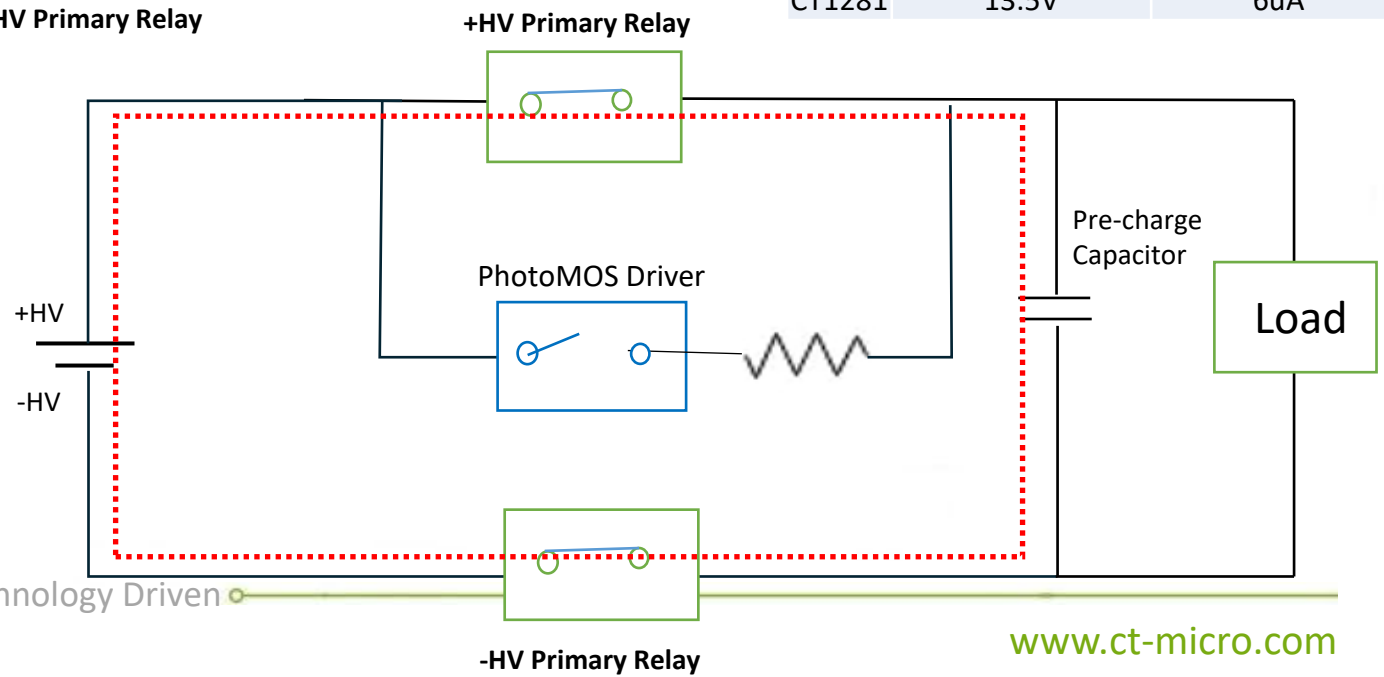
BMS – Battery monitoring for BESS



In-Rush Current Prevention: Pre-Charge Circuit



Post
Pre-Charge
State





Thank You!