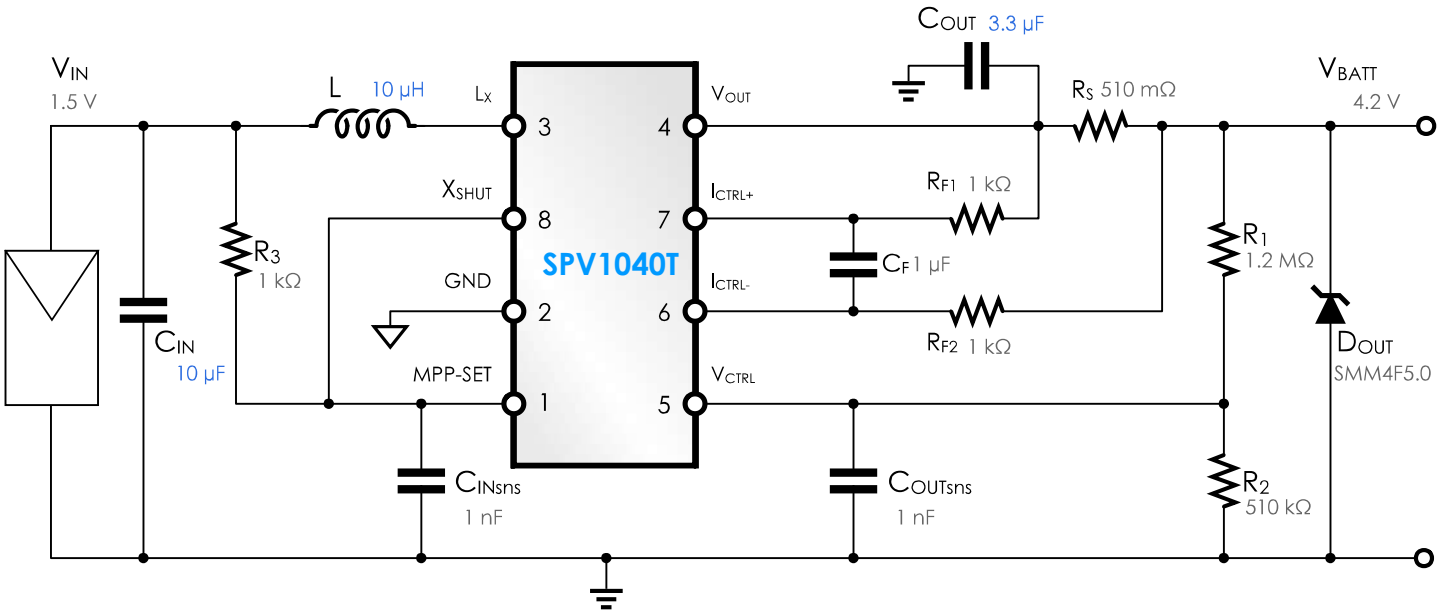
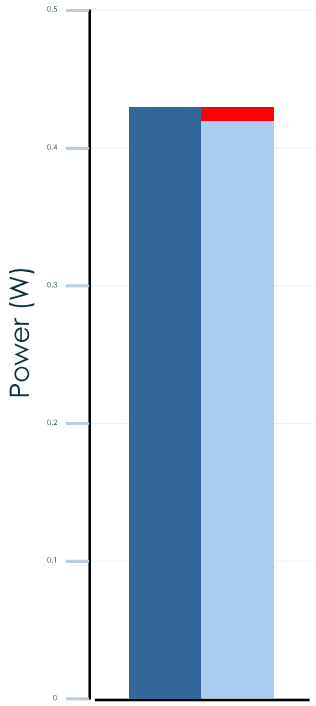
IC: SPV1040T - TSSOP 8
Input: 1.5 V (0 % ripple)
Output: 4.2 V (10 % ripple) - 100 mA max
Panel:
Vmp: 1.5 V - **Voc**: 2 V
Imp: 300 mA - **Isc**: 330 mA
System Operating Condition: **Solar irradiance:** 10000 % (Iin = 300 mA) - **Ta:** 25.0 °C

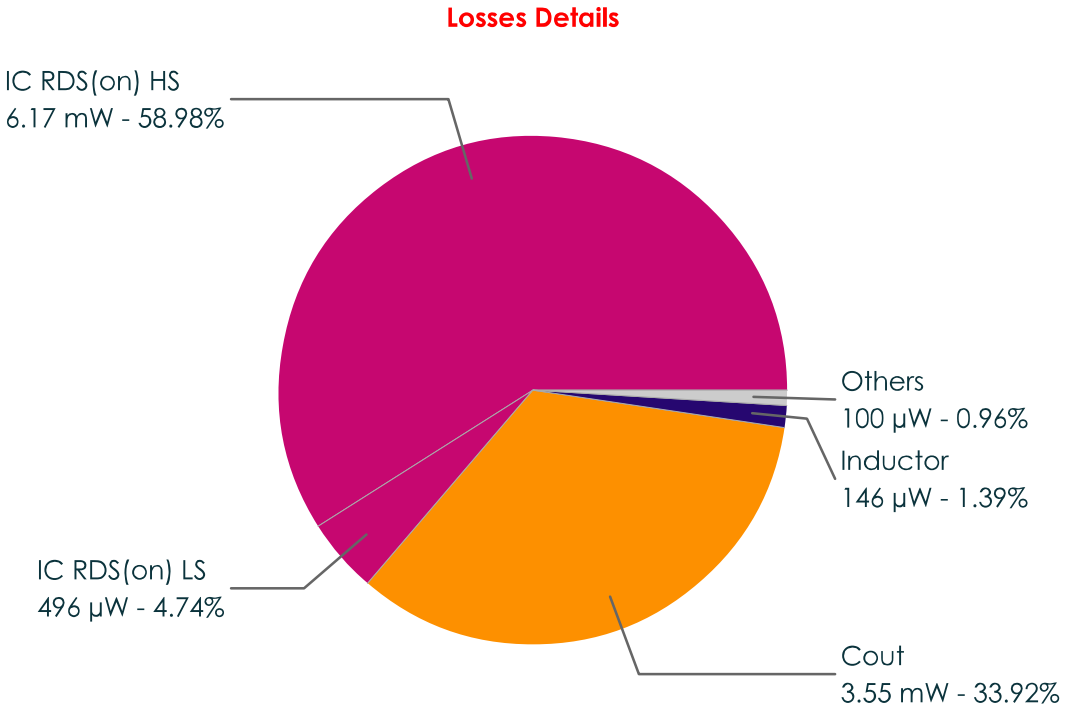


Bill of Materials

Type	Reference	Value	Description
IC	IC	SPV1040T	SPV1040T - TSSOP 8
Inductor	L	10 µH	3.3 A - Panasonic - ELLATV100M
Capacitor	Cout	3.3 µF	10 V - 20% - TDK - C3216X5R1A335M
Capacitor	Cin	10 µF	4 V - 20% - Panasonic - ECJ1VB0G106M
PV Panel	Panel	1.5 V, 300 mA	
Resistor	RS	510 mΩ	510 mΩ
Resistor	RF1	1 kΩ	1 kΩ
Resistor	RF2	1 kΩ	1 kΩ
Capacitor	CF	1 µF	1 µF
Resistor	R3	1 kΩ	1 kΩ
Capacitor	CinSNS	1 nF	1 nF - Voltage rating > 5.2 V
Resistor	R1	1.2 MΩ	1.2 MΩ
Resistor	R2	510 kΩ	510 kΩ
Capacitor	CoutSNS	1 nF	1 nF - Voltage rating > 5.2 V
Diode	Dout	SMM4F5.0	Vbr: 6.8 V , Vcl: 9.2 V - STMicroelectronics

Power Losses



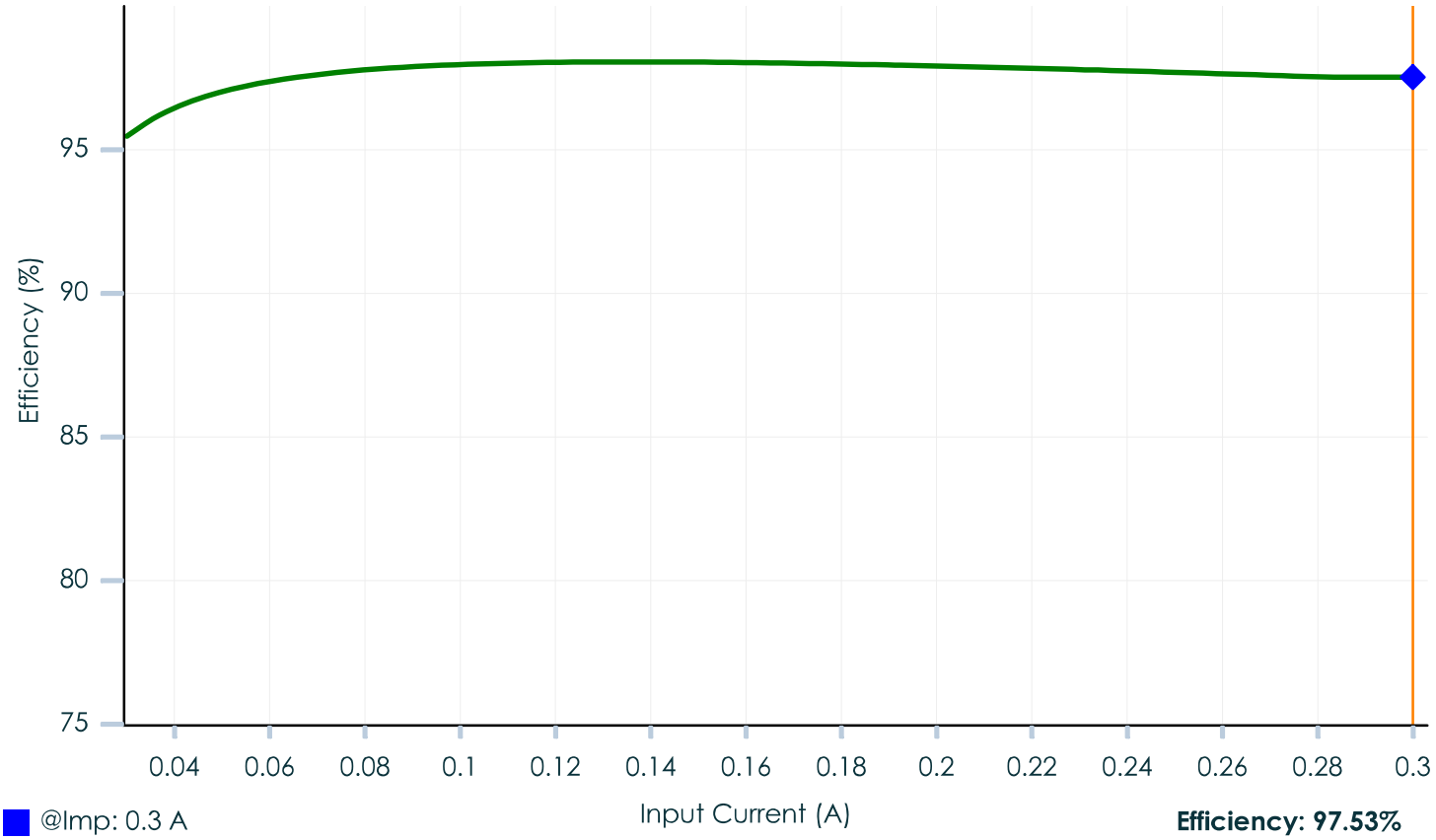


Pin: 0.43 W Pout: 419.12 mW

Plosses: 10.46 mW - 2.44%

Efficiency: 97.56% ΔTj: 934 m°C

Efficiency



@Imp: 0.3 A

Efficiency: 97.53%

CV vs CC