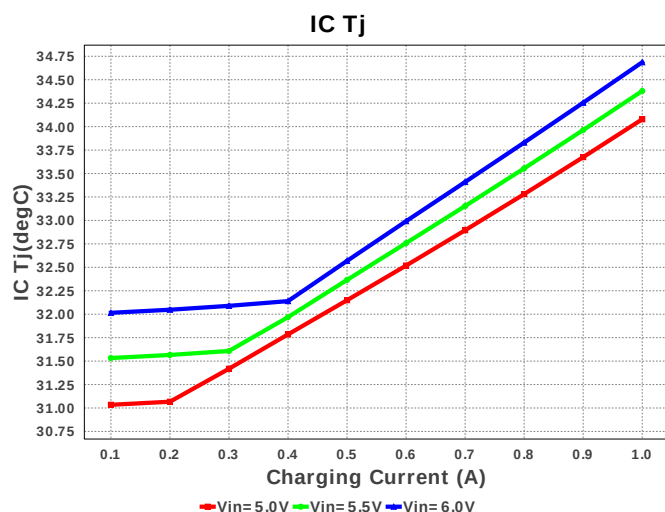
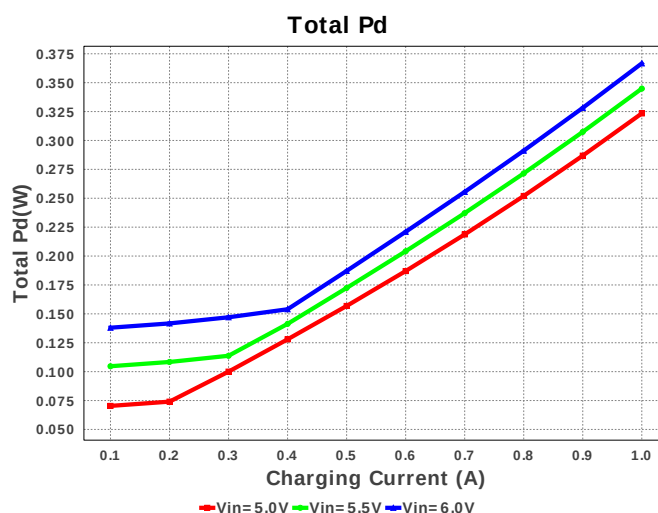
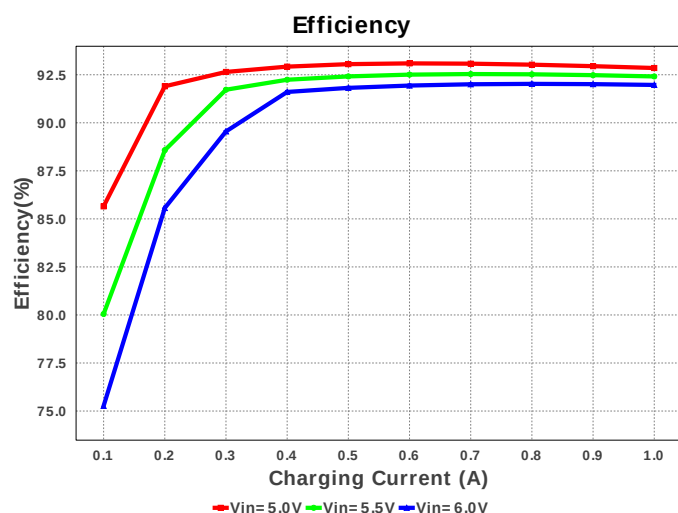




Device = BQ24190RGER
Topology = BMS_BUCK
Created = 7/13/16 12:26:05 AM
BOM Cost = \$3.25
BOM Count = 16
Total Pd = 0.35W

#	Name	Manufacturer	Part Number	Properties	Qty	Price	Footprint
11.	RT22	Vishay-Dale	CRCW040230K9FKED Series= CRCW..e3	Res= 30.9 kOhm Power= 63.0 mW Tolerance= 1.0%	1	\$0.01	 0402 3 mm ²
12.	Rlim	Vishay-Dale	CRCW0402590RFKED Series= CRCW..e3	Res= 590.0 Ohm Power= 63.0 mW Tolerance= 1.0%	1	\$0.01	 0402 3 mm ²
13.	Rstat	Vishay-Dale	CRCW04022K21FKED Series= CRCW..e3	Res= 2.21 kOhm Power= 63.0 mW Tolerance= 1.0%	1	\$0.01	 0402 3 mm ²
14.	Rthm1	MuRata	NCP15XH103E03RC Series= NCP15	Thermistor	1	\$0.03	 0402 3 mm ²
15.	Rthm2	MuRata	NCP15XH103E03RC Series= NCP15	Thermistor	1	\$0.03	 0402 3 mm ²
16.	U1	Texas Instruments	BQ24190RGER	Switcher	1	\$2.50	 RGE0024H 25 mm ²



Operating Values

#	Name	Value	Category	Description
1.	BOM Count	16	General	Total Design BOM count
2.	Cell Capacity	2.0 000mAh	General	Cell Capacity
3.	Cells in Parallel	1.0	General	Cells in Parallel
4.	Cells in Series	1.0	General	Cells in Series
5.	FootPrint	96.0 mm ²	General	Total Foot Print Area of BOM components
6.	Frequency	1.5 MHz	General	Switching frequency
7.	Total BOM	\$3.25	General	Total BOM Cost
8.	Total Battery Capacity	2.0 000mAh	General	Total Battery Capacity
9.	ICThetaJA Effective	15.0 degC/W	Op_Point	Effective IC Junction-to-Ambient Thermal Resistance
10.	Ichg_OP	960.0 mA	Op_Point	Battery charging current
11.	Ichg_Sch	960.0 mA	Op_Point	Charge current selected
12.	IinMax_Sch	900.0 mA	Op_Point	Maximum input current selected
13.	Vchg_OP	4.192 V	Op_Point	Battery output voltage
14.	Vchg_Sch	4.192 V	Op_Point	Charge voltage selected
15.	Efficiency	91.973 %	Op_point	Steady state efficiency
16.	IC Tj	34.514 degC	Op_point	IC junction temperature
17.	VIN_OP	6.0 V	Op_point	Vin operating point
18.	Total Pd	351.21 mW	Power	Total Power Dissipation

Design Inputs

#	Name	Value	Description
1.	IchgMax	1.0	Ichg
2.	IinMax	1.0	IinMax
3.	Vchg	4.2	Vchg
4.	VinMax	6.0	Maximum input voltage
5.	VinMin	5.0	Minimum input voltage
6.	base_pn	BQ24190	Base Product Number
7.	source	DC	Input Source Type
8.	Ta	30.0	Ambient temperature

Design Assistance

1. **BQ24190** Product Folder : <http://www.ti.com/product/bq24190> : contains the data sheet and other resources.

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You should completely validate and test your design implementation to confirm the system functionality for your application prior to production.

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