

Device Modeling Report

COMPONENTS: Solar Cell
PART NUMBER: SF150-K
MANUFACTURER: Solar Frontier
REMARK: LTspice Model

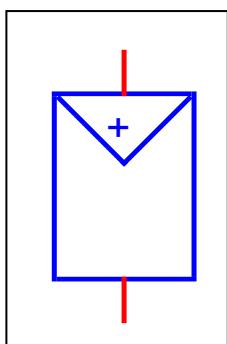


Bee Technologies Inc.

SPICE MODEL

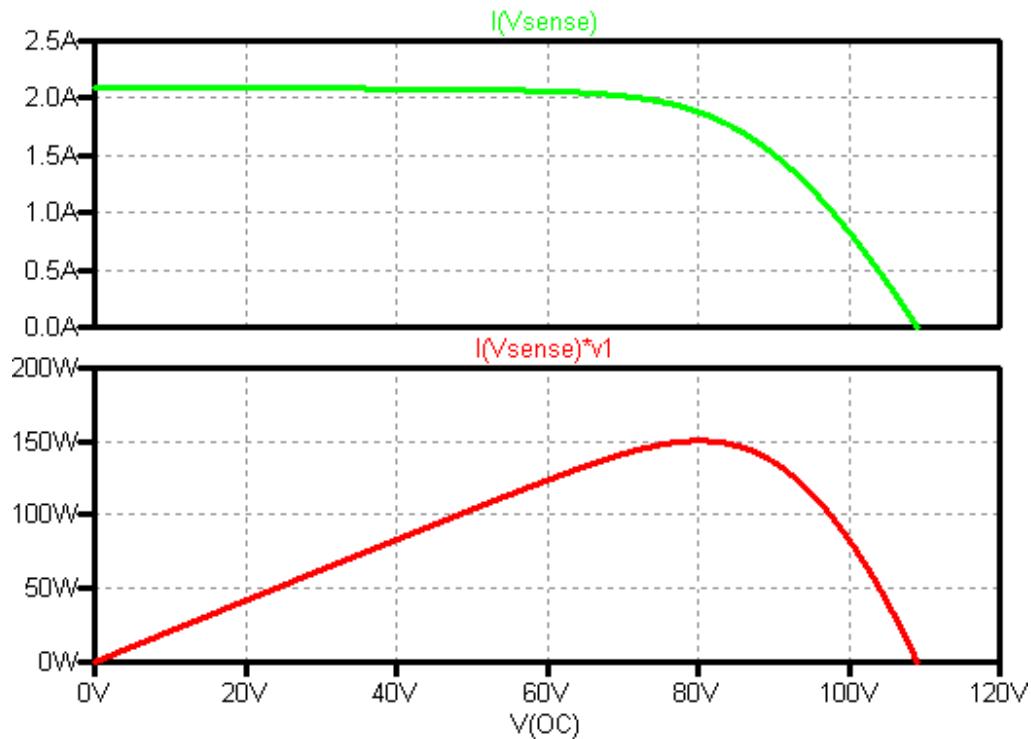
```
*$  
*PART NUMBER: SF150-K  
*MANUFACTURER: Solar Frontier  
*REMARK: Pmax=150(W)  
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.SUBCKT SF150-K Plus Minus  
R_RS1 N00A Plus 15.13m  
R_Rsh1 Minus N00A 2200  
D_D1 N00A Minus DIODE_SF150-K  
I_I1 Minus N00A DC 2.1  
.Model DIODE_SF150-K D  
+ IS=1.9868u  
+ N=266.667  
+ RS=6620m  
+ IKF=0  
.ENDS  
*$
```

Equivalent Circuit

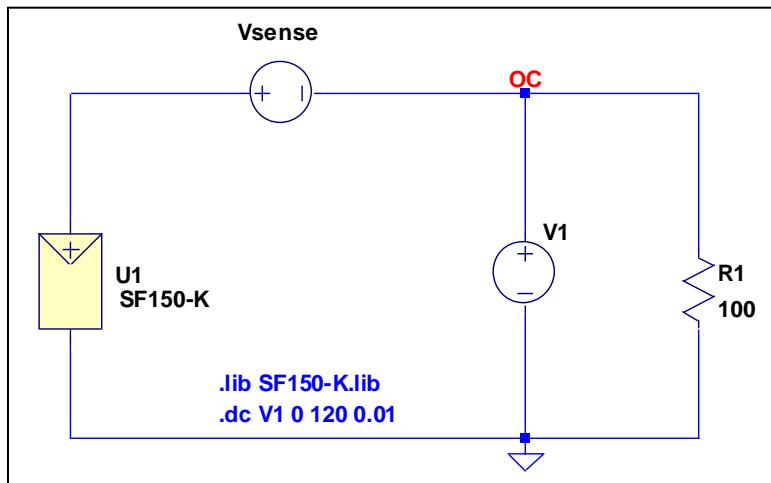


Output Characteristics

Simulation result

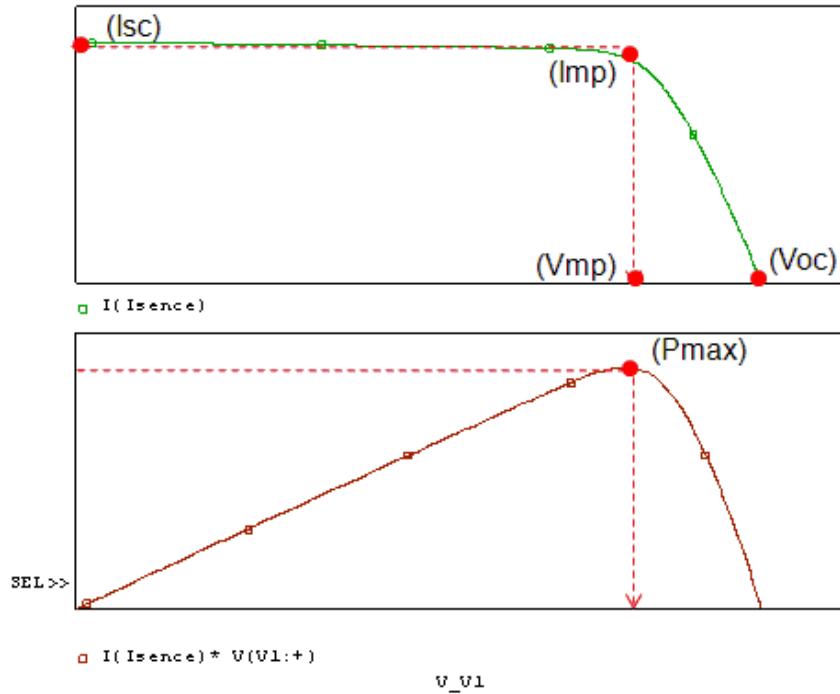


Evaluation circuit



Comparison Graph

Simulation result



Comparison table

Parameter	Measurement	Simulation	%Error
Pmax(W)	150.00	150.50	0.33
Vmp(V)	79.00	80.20	1.52
Imp(A)	1.90	1.88	-1.24
Isc(A)	2.10	2.10	0.00
Voc(V)	110.00	109.08	-0.84