

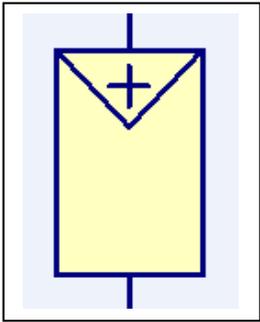
# Device Modeling Report

COMPONENTS: Solar Cell  
PART NUMBER: ND-191AV  
MANUFACTURER: SHARP  
REMARK:Pmax=191(W)  
REPORT of SolarCells (LTspice IV)



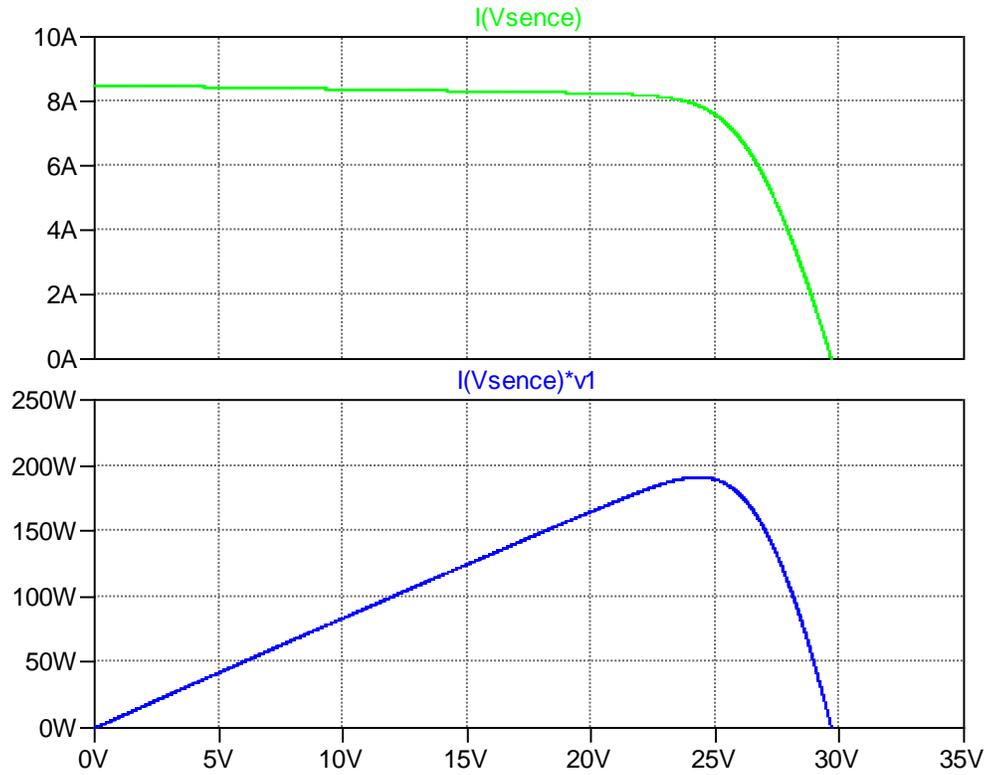
**Bee Technologies Inc.**

# Circuit Configuration

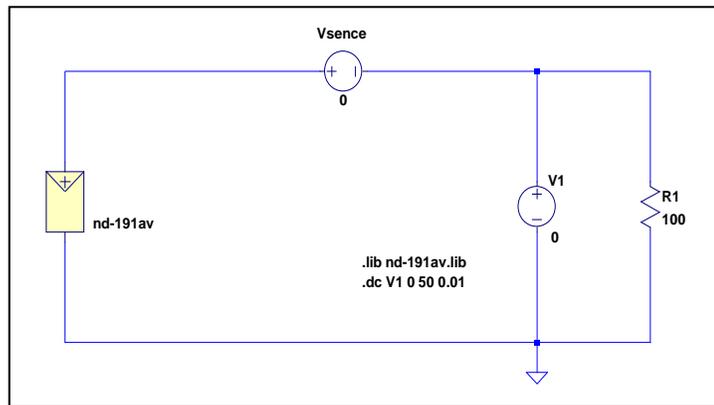


# Output Characteristic

## Circuit Simulation Result



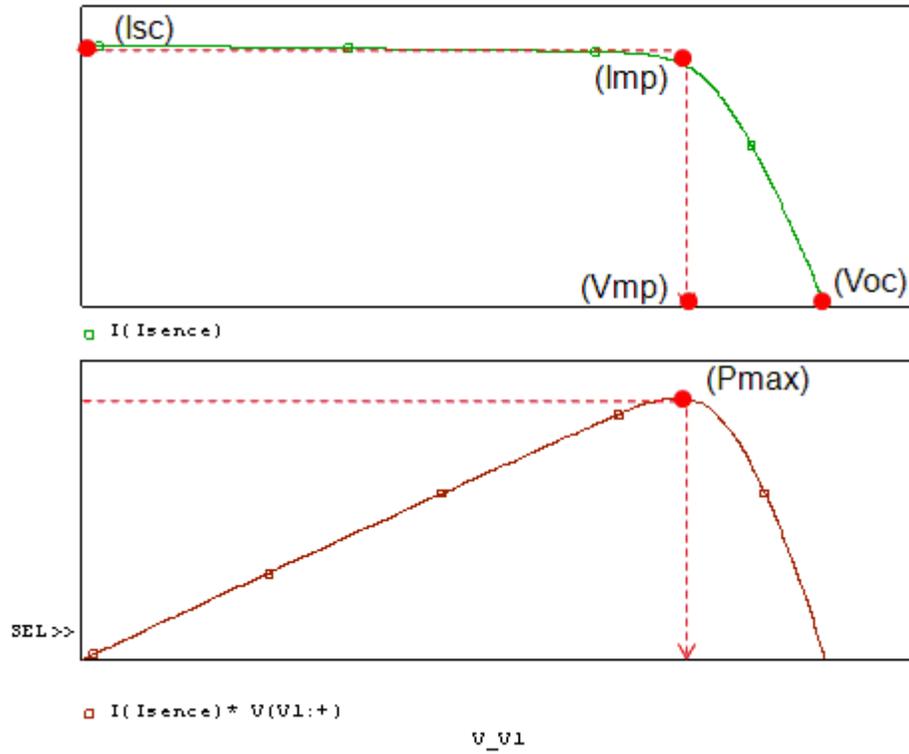
## Simulation Circuit



# Output Characteristic

# Reference

## Circuit Simulation Result



## Data Table

| Symbol | Measurement | Simulation | %Error  |
|--------|-------------|------------|---------|
| Pmax   | 191.0000    | 191.0020   | 0.0010  |
| Vmp    | 24.3100     | 24.3050    | -0.0206 |
| Imp    | 7.8600      | 7.8585     | -0.0191 |
| Voc    | 29.7000     | 29.6430    | -0.1919 |
| Isc    | 8.5100      | 8.5087     | -0.0153 |

## Data Information

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|                             |          |
|-----------------------------|----------|
| No. ND-191AV                |          |
| Maximum output (Pmax)       | 191.0000 |
| Maximum power voltage (Vmp) | 24.3100  |
| Maximum power current (Imp) | 7.8600   |
| Open circuit voltage (Voc)  | 29.7000  |
| Short circuit current (Isc) | 8.5100   |