

EFFECT OF TEMPERATURE ON SOLAR MODULES

$$I_0 = B T e^{-\frac{E_{co}}{KT}}$$

B = CONSTANT INDEPENDENT OF TEMPERATURE

E_{co} = LINEARITY EXTRA POLATED ZERO TEMPERATURE

I_0 = DARK CURRENT

T = ABSOLUTE TEMPERATURE

MAXIMUM POWER OUT PUT RELATED TO
SERIES RESISTANCE

$$P_m = P_{mp} \left(1 - \frac{I_{sc}}{V_{oc}} R_s \right)$$

EFFECT OF SHUNT RESISTANCE ON FILL FACTOR

$$FF_{sh} = FF_0 \left\{ 1 - \frac{(V_{oc} + 0.7)}{V_{oc}} \times \frac{FF_0}{R_{sh}} \right\}$$