PIN junction type Solar Cell has a higher efficiency but still less than 28% ?? Photon wave length between 0.5 μ m and $V_{out} < 0$ 1.1 μ m may contribute to the solar cell efficiency if we can control the side edge? Load 2.5 Less than 28% 2.4 2.3 Light **Intrinsic Silicon** SiO2 N+ 2.0 **■** Vout < 0 Photon energy less than 1.11 eV Incident Sun Light 1.8 with the wave length longer than 1.12 μ m Light Light cannot be converted to 1.6 **Electric Energy** SiO2 h+ 1.0 1.0 0.9 0.9 The P+P Barrier also 0.8 .ess than 50% ?? can contribute to 0.7 0.7 the solar cell efficiency. 0.6 0.6 **Incident Sun Light** 0.5 0.5 Silicon Penetration Depth (μ m) 0.4 0.4 0.3 0.3 6 8 16 10 14 18 **Relative Photon Power**

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