

2011 3B5 Answers to numerical questions

Q1 a(iii): $a=6.74 \times 10^{-10} \text{m}$
c(i): 1/4; 1/4

Q2 c: $E_F - E_V = 0.174 \text{eV}$

Q3 c: $w=4.6 \text{ micron}$
 $\epsilon_{\text{max}} = -694 \text{kVm}^{-1}$
d: 0.63

Q4 d: 177kVm^{-1}