

Reverse bias: If the negative from the power source in the circuit is connected to the p-doped segment, and the positive is connected to the n-doped segment, the positively charged holes on the p-side of the junction are attracted to its negative terminal; away from the depletion zone. The p-n junction still prevents electrical conduction as the mobile carriers are repelled from the depletion region. Similarly, the negatively charged free electrons on the n side of the junction are attracted to the positive part; i.e. away from the depletion region. Then, this impulse overcomes the barrier, allowing electrons to cross over to the other side and fill in the gaps