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```
clc;  
clear;  
close all;
```

Code

```
EbN0dB = -4:2:12; % SNR in dB  
EbN0 = 10.^(EbN0dB/10); % SNR in linear scale  
SNR = EbN0; % SNR is same as Eb/N0 for BPSK modulation using Q-function  
BER = 0.5*(1 - sqrt(SNR./(2+SNR)));
```

Plotting

```
semilogy(EbN0dB, BER, 'b-o');  
grid on;  
xlabel('Eb/N0 (dB)');  
ylabel('Bit Error Rate (BER)');  
title('Bit Error Rate (BER) for BPSK Modulation');
```



