```
%% plot half
f = (0:N/2-1)/N*Fs/1000; % frequency of half spectrogram (kHz)

figure(3)
image(t,f,X(1:floor(N/2),:));
colormap(hot(256));
colorbar;
axis('xy');
xlabel('Time (sec)');
ylabel('Frequency (kHz)');
```

