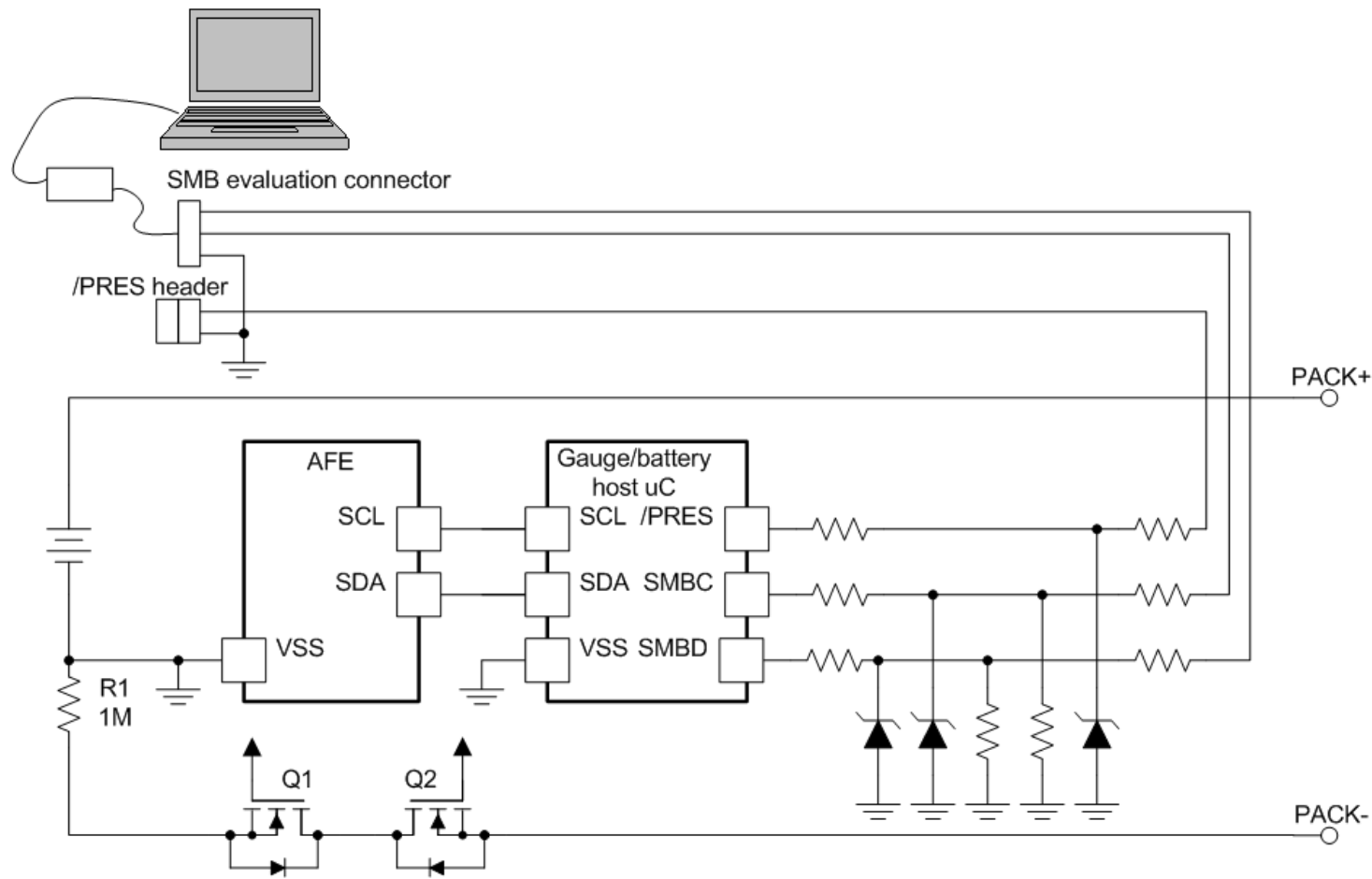


System isolation – low side switching

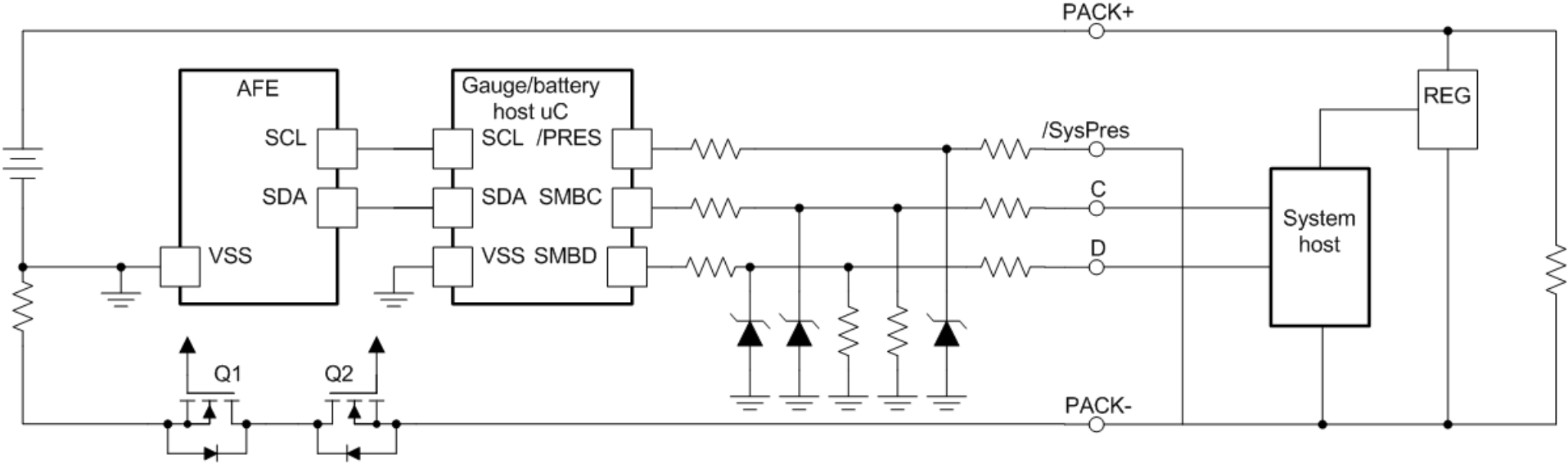
7/11/2018

Willy Massoth

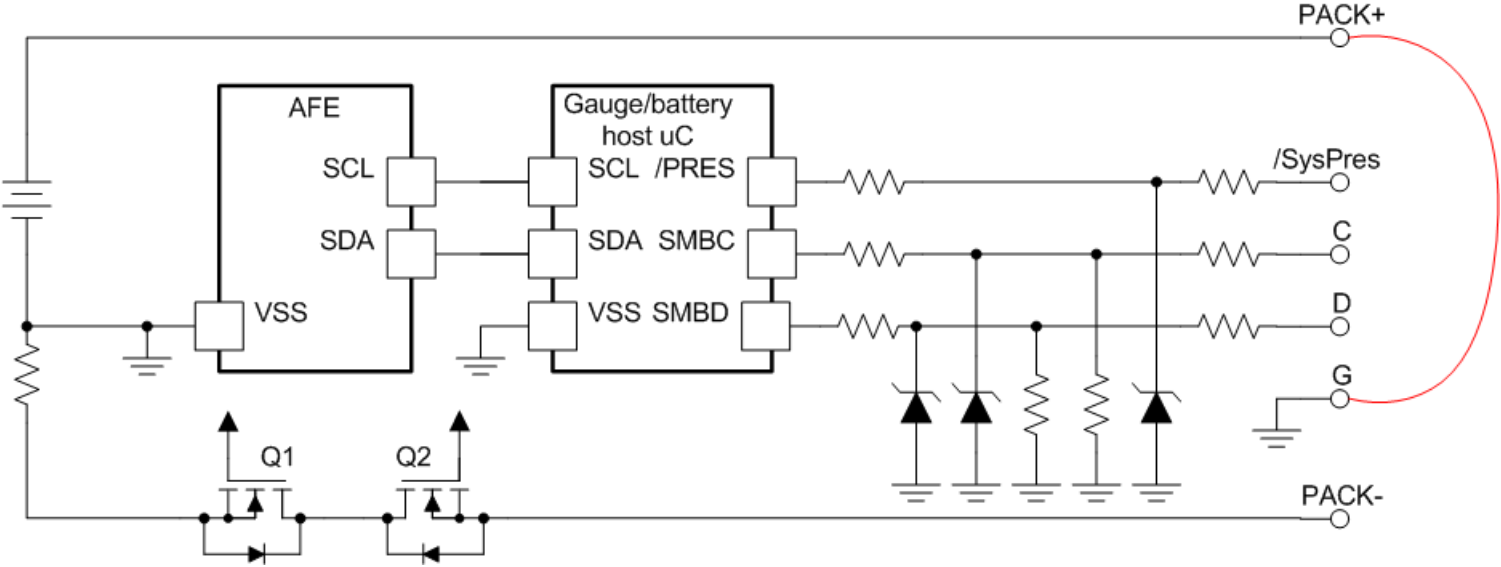
Separate comm path like evaluation



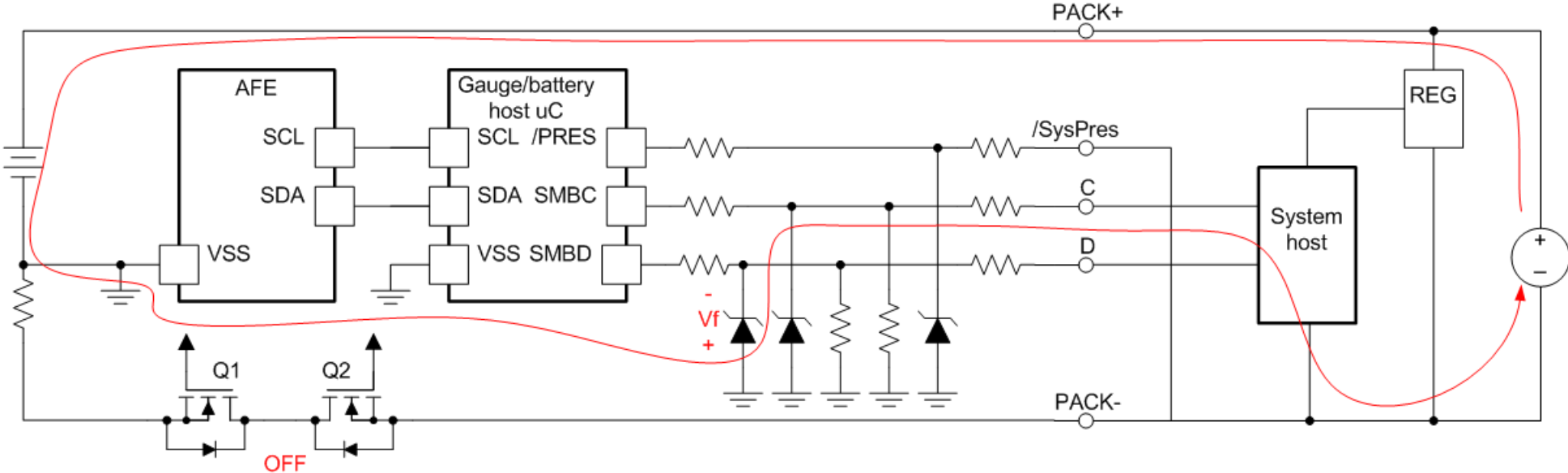
Basic diagram, low side switching



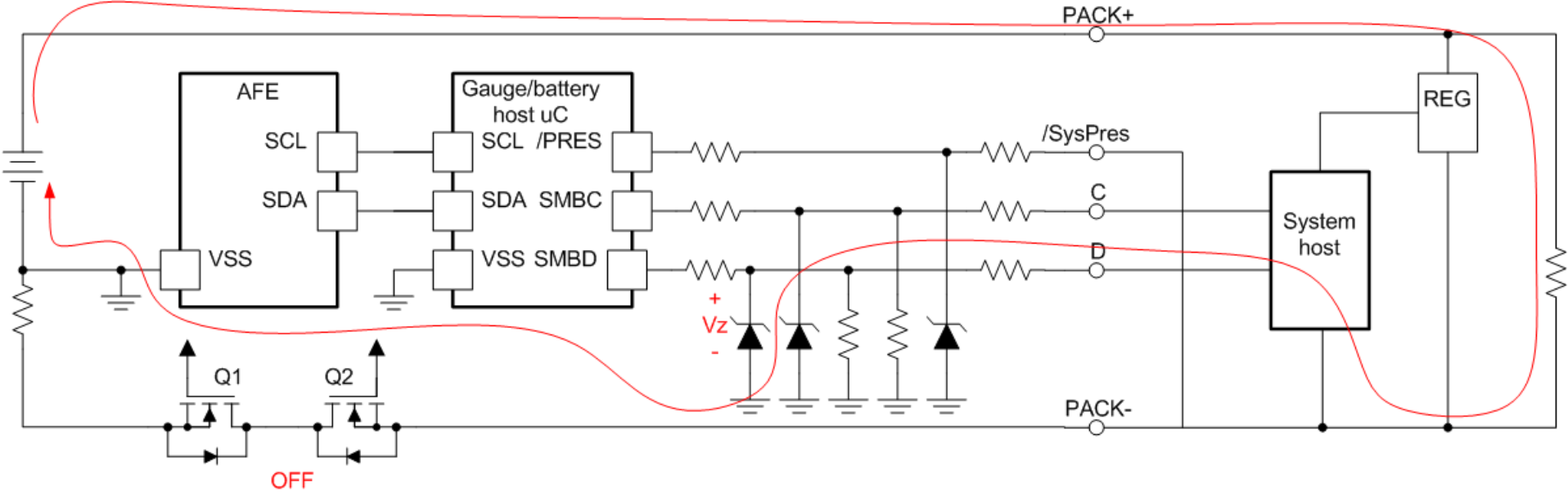
Risk of separate comm reference path



Low side switching comm leakage charge

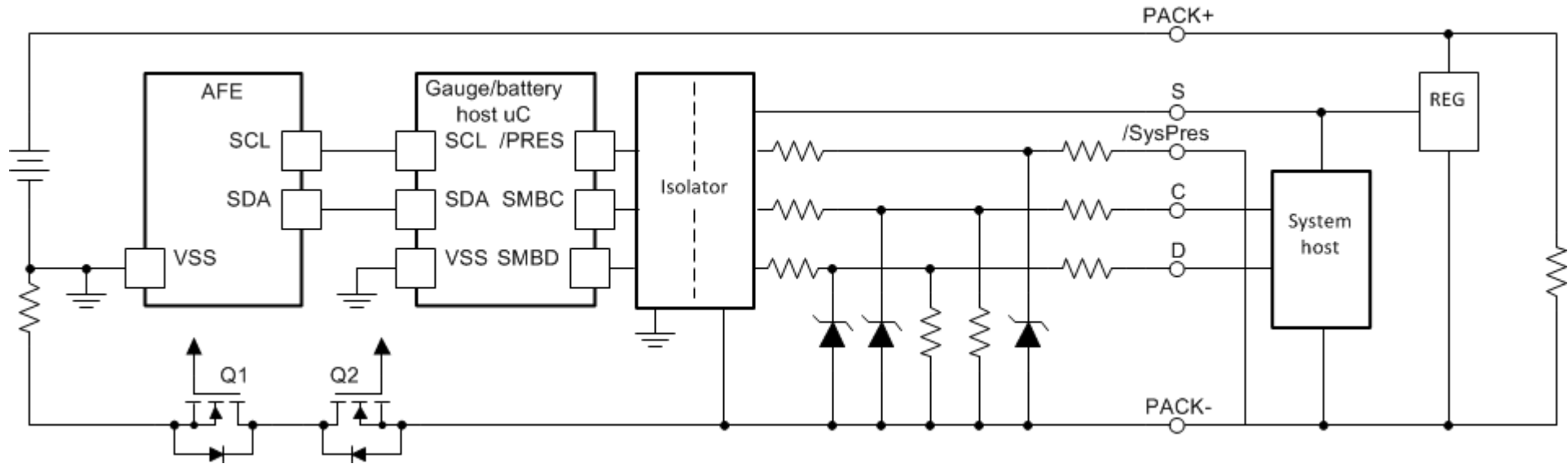


Low side switching comm leakage discharge



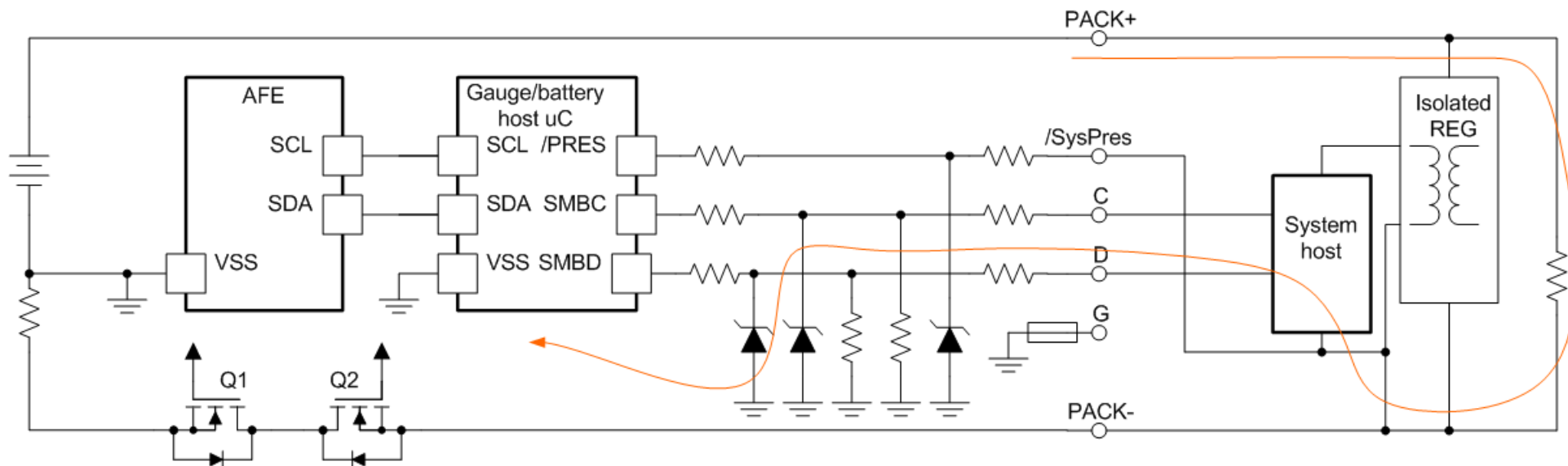
Low side switching leakage eliminated by isolation

Must power the isolator, each side



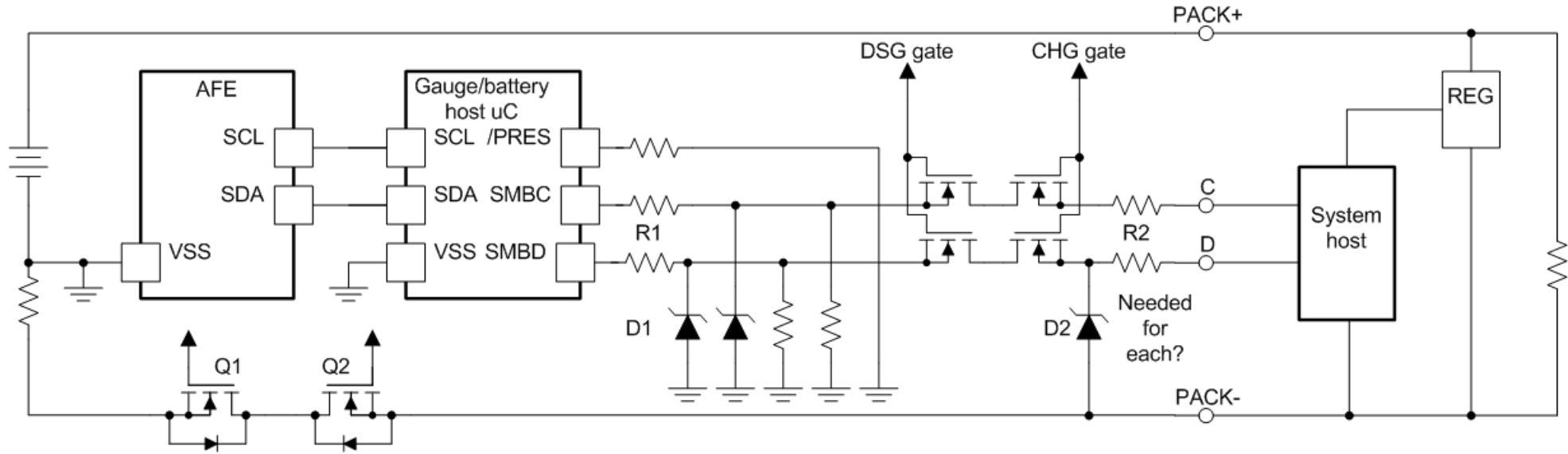
Isolated regulator

Even with isolated regulator, if grounds are common there can be leakage
Must keep grounds separate



Low side switching, switch comm

Comm lost during fault, but no leakage
Switching /PRES may create a latch



High side switching

When protected, there is no power path into the host to leak back through comm

