

ABSTRACT

A discharge detector 1 of the present invention for detecting discharge occurred in a circuit with an electrically connected load based on a noise in a high
5 frequency band superimposed on an alternating current power source supplied to the circuit, the discharge detector 1 includes: a high pass filter 11 configured to extract a frequency component in a high frequency band from the alternating current power source 91; an amplifier 12 configured to amplify an output of the high pass filter 11; a smoothing section 13 configured to smooth an output of the amplifier 12; a phase
10 division section 14 configured to specify a peak time domain including time before and after a peak value and a zero cross time domain including time before and after a 0 value based on a value in one cycle of a voltage or current of the alternating current power source 91; and a determination section 15 configured to determine whether discharge has occurred based on a difference between a first output of the smoothing
15 section 13 in the peak time domain and a second output of the smoothing section 13 in the zero cross time domain.