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Vorrapan Chandee* (vchandee@math.stanford.edu), Department of Mathematics, Stanford University, 450 Serra Mall, Building 380, Stanford, CA 94305. *Explicit Upper Bounds for L -functions on the critical line.*

We find an explicit upper bound for general L -functions on the critical line, assuming the Generalized Riemann Hypothesis, and give as illustrative examples its application to some families of L -functions and Dedekind zeta functions. Further, this upper bound is used to obtain lower bounds beyond which all eligible integers are represented by Ramanujan's ternary form. This improves on previous work of Ono and Soundararajan with a substantially easier proof. (Received September 02, 2009)