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Let $\xi_0 < \cdots < \xi_{2n-1} < \xi_{2n} = \xi_0 + 2\pi$ be any set of $2n + 1$ consecutive critical points of a trigonometric polynomial t of degree n having only real zeros, all simple. Besides, let $m := \min_{0 \leq \nu \leq 2n-1} |t(\xi_\nu)|$ and $M := \max_{0 \leq \nu \leq 2n-1} |t(\xi_\nu)|$. Supposing that $m = |t(\xi_k)|$, we study the behaviour of t in the neighbourhood of ξ_k , and decide how far away the closest of its zeros can be. (Received September 27, 2005)