Calc-lemma, corrected

Let $A \neq 0$ be hermitian operator on V, $v \in V$; $f(t) = |\exp(tA)v|^2$,

(i) t_0 is a critical point for $f \iff v_0 = \exp(t_0 A)v$ satisfies $\langle Av_0, v_0 \rangle = 0$

(ii) There is at most one critical point for f.

(iii) Such a point is a point of global min