```
dededing_imp_unb_inf  THM

⊢  ∀A:Type. Dedekind-Infinite(A) ⇒ Unbounded(A)
  by BackChain:
     Thm*  Dedekind-Infinite(A) ⇒ Infinite(A)
     {dedekind_inf_imp_inf} |
     Thm*  Infinite(A) ⇒ Unbounded(A)
     {unboundedly_imp_productively_infinite}
END
```