

63. (a) Put five such capacitors in series. Then, the equivalent capacitance is $2.0\,\mu\text{F}/5 = 0.40\,\mu\text{F}$. With each capacitor taking a 200-V potential difference, the equivalent capacitor can withstand 1000 V.
- (b) As one possibility, you can take three identical arrays of capacitors, each array being a five-capacitor combination described in part (a) above, and hook up the arrays in parallel. The equivalent capacitance is now $C_{\text{eq}} = 3(0.40\,\mu\text{F}) = 1.2\,\mu\text{F}$. With each capacitor taking a 200-V potential difference the equivalent capacitor can withstand 1000 V.