

Expected Life Calculation Formula (Hybrid Cap)

$$L = L_s \times 2^{\left[\frac{(T_s + \Delta T_s) - (T + \Delta T)}{10} \right]}$$

$$\Delta T = \Delta T_s \left[\frac{I}{I_s} \right]^2$$

I : Actual ripple current
I_s : Rated ripple current

- L : Expected Life at operating temperature with ripple current
- L_s : Basic life at maximum operating temperature
- T : Actual operating temperature (ambient temperature at the set of customer)
- T_s : Maximum operating temperature at the specified operating temperature range
- ΔT_s : Heat rise by ripple current at the maximum operating temperature : Generally 5°C
- ΔT : Heat rise by actual ripple current

※ Expected life calculation

Maximum operating temperature & Life	Rated ripple Current	Expected Life (Actual ripple current 115mA _{rms} , Actual operating temp. 85°C)
125°C 4,000hrs	1,200mA _{rms}	90,222hrs (10.3years)