

14 Pin SMD Single Output TTL Compatible Active Delay Lines EPA810-XX & EPA810-XX-RC

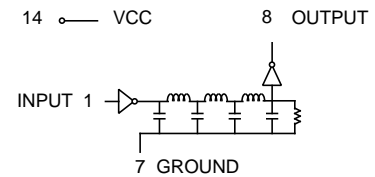
Add "-RC" after part number for RoHS Compliant

| PCA Part Number | Time Delays ($\pm 5\%$ or $\pm 2nS$) | PCA Part Number | Time Delays ($\pm 5\%$ or $\pm 2nS$) | PCA Part Number | Time Delays ($\pm 5\%$ or $\pm 2nS$) |
|-----------------|---|-----------------|---|------------------|---|
| EPA810-5(-RC) | 5 | EPA810-22(-RC) | 22 | EPA810-95(-RC) | 95 |
| EPA810-6(-RC) | 6 | EPA810-23(-RC) | 23 | EPA810-100(-RC) | 100 |
| EPA810-7(-RC) | 7 | EPA810-24(-RC) | 24 | EPA810-125(-RC) | 125 |
| EPA810-8(-RC) | 8 | EPA810-25(-RC) | 25 | EPA810-150(-RC) | 150 |
| EPA810-9(-RC) | 9 | EPA810-30(-RC) | 30 | EPA810-175(-RC) | 175 |
| EPA810-10(-RC) | 10 | EPA810-35(-RC) | 35 | EPA810-200(-RC) | 200 |
| EPA810-11(-RC) | 11 | EPA810-40(-RC) | 40 | EPA810-225(-RC) | 225 |
| EPA810-12(-RC) | 12 | EPA810-45(-RC) | 45 | EPA810-250(-RC) | 250 |
| EPA810-13(-RC) | 13 | EPA810-50(-RC) | 50 | EPA810-275(-RC) | 275 |
| EPA810-14(-RC) | 14 | EPA810-55(-RC) | 55 | EPA810-300(-RC) | 300 |
| EPA810-15(-RC) | 15 | EPA810-60(-RC) | 60 | EPA810-350(-RC) | 350 |
| EPA810-16(-RC) | 16 | EPA810-65(-RC) | 65 | EPA810-400(-RC) | 400 |
| EPA810-17(-RC) | 17 | EPA810-70(-RC) | 70 | EPA810-500(-RC) | 500 |
| EPA810-18(-RC) | 18 | EPA810-75(-RC) | 75 | EPA810-600(-RC) | 600 |
| EPA810-19(-RC) | 19 | EPA810-80(-RC) | 80 | EPA810-700(-RC) | 700 |
| EPA810-20(-RC) | 20 | EPA810-85(-RC) | 85 | EPA810-800(-RC) | 800 |
| EPA810-21(-RC) | 21 | EPA810-90(-RC) | 90 | EPA810-900(-RC) | 900 |
| | | | | EPA810-1000(-RC) | 1000 |

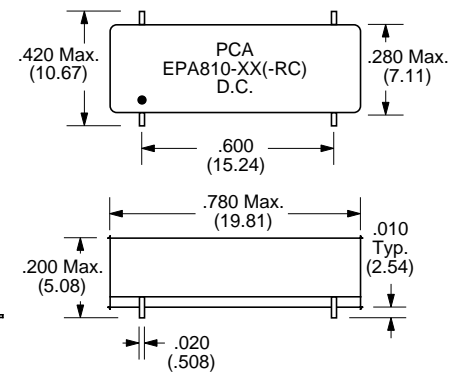
† Whichever is greater. • Delay times referenced from input to leading edges at 25°C, 5.0V, with no load.

| DC Electrical Characteristics | | Test Conditions | Min. | Max. | Unit |
|-------------------------------|------------------------------|--|------|-------------|------|
| Parameter | | | | | |
| V _{OH} | High-Level Output Voltage | V _{CC} = min. V _{IL} = max. I _{OH} = max | 2.7 | | V |
| V _{OL} | Low-Level Output Voltage | V _{CC} = min. V _{IH} = min. I _{OL} = max | | 0.5 | V |
| V _{IK} | Input Clamp Voltage | V _{CC} = min. I _I = I _{IK} | | -1.2 | V |
| I _{IH} | High-Level Input Current | V _{CC} = max. V _{IN} = 2.7V | | 50 | µA |
| | | V _{CC} = max. V _{IN} = 5.25V | | 1.0 | mA |
| I _{IL} | Low-Level Input Current | V _{CC} = max. V _{IN} = 0.5V | | -2 | mA |
| I _{OS} | Short Circuit Output Current | V _{CC} = max. V _{OUT} = 0. (One output at a time) | -40 | -100 | mA |
| I _{CCH} | High-Level Supply Current | V _{CC} = max. V _{IN} = OPEN | | 75 | mA |
| I _{CCL} | Low-Level Supply Current | V _{CC} = max. V _{IN} = 0 | | 75 | mA |
| T _{RO} | Output Rise Time | T _d 500 nS (0.75 to 2.4 Volts) | | 4 | nS |
| | | T _d > 500 nS | | 5 | nS |
| N _H | Fanout High-Level Output | V _{CC} = max. V _{OH} = 2.7V | | 20 TTL Load | |
| N _L | Fanout Low-Level Output | V _{CC} = max. V _{OL} = 0.5V | | 10 TTL Load | |

Schematic



Package



| Recommended Operating Conditions | | Min. | Max. | Unit |
|----------------------------------|--------------------------------|------|------|------|
| V _{CC} | Supply Voltage | 4.75 | 5.25 | V |
| V _{IH} | High-Level Input Voltage | 2.0 | | V |
| V _{IL} | Low-Level Input Voltage | | 0.8 | V |
| I _{IK} | Input Clamp Current | | -18 | mA |
| I _{OH} | High-Level Output Current | | -1.0 | mA |
| I _{OL} | Low-Level Output Current | | 20 | mA |
| PW* | Pulse Width of Total Delay | 40 | | % |
| d* | Duty Cycle | | 40 | % |
| T _A | Operating Free-Air Temperature | 0 | +70 | °C |

*These two values are inter-dependent.

| Input Pulse Test Conditions @ 25° C | | Unit | |
|-------------------------------------|---|------|-------|
| E _{IIN} | Pulse Input Voltage | 3.2 | Volts |
| PW | Pulse Width % of Total Delay | 110 | % |
| T _{RI} | Pulse Rise Time (0.75 - 2.4 Volts) | 2.0 | nS |
| PRR | Pulse Repetition Rate @ T _d 200 nS | 1.0 | MHz |
| | Pulse Repetition Rate @ T _d > 200 nS | 100 | KHz |
| V _{CC} | Supply Voltage | 5.0 | Volts |

| Notes : | EPA810-XX | EPA810-XX-RC |
|---|------------------------------|-----------------------------|
| 1. Assembly Process (Leadframe) (Solder Composition) (Assembly Solder) | SnPb | Sn |
| 2. Peak Solder Rating (per IPC/JEDEC J-STD-020C) | 225°C | 260°C |
| 3. Moisture Sensitive Levels (MSL) (per IPC/JEDEC J-STD-020C) | 3 (168 hours, 30°C/60%RH) | 4 (72 hours, 30°C/60%RH) |
| 4. Weight | TBD grams | TBD grams |
| 5. Packaging Information (Tube) | 25 pieces/tube | 25 pieces/tube |

Unless Otherwise Specified Dimensions are in Inches /mm ± .010 /.25