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

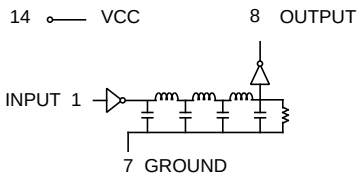
Add “-RC” after part number for RoHS Compliant

| PCA Part Number | Time Delays (†±5% or ± 2nS) | PCA Part Number | Time Delays (†±5% or ± 2nS) | PCA Part Number | Time Delays (†±5% or ± 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 |

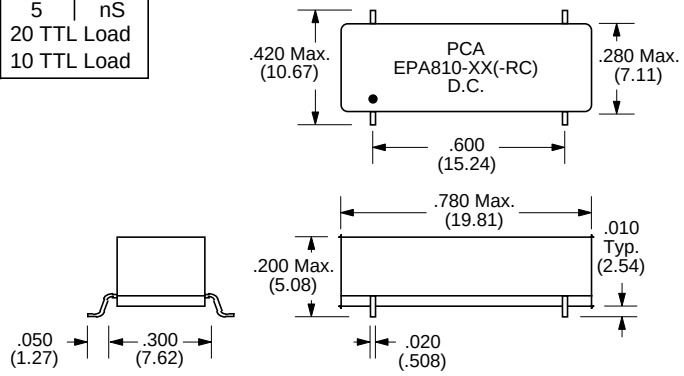
*†Whichever is greater. • Delay times referenced from input to leading edges at 25°C, 5.0V, with no load.*

| DC Electrical Characteristics Parameter | | Test Conditions | Min. | Max. | Unit |
|---|---|---|---|---|---|
| $V_{OH}$ | 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 | Td ≤ 500 nS (0.75 to 2.4 Volts) | | 4 | nS |
| | | Td > 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 |
| $P_W$* | 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 |
|---|---|---|---|
| $E_{IN}$ | Pulse Input Voltage | 3.2 | Volts |
| $P_W$ | Pulse Width % of Total Delay | 110 | % |
| $T_{RI}$ | Pulse Rise Time (0.75 - 2.4 Volts) | 2.0 | nS |
| $P_{RR}$ | Pulse Repetition Rate @ Td ≤ 200 nS | 1.0 | MHz |
| | Pulse Repetition Rate @ Td > 200 nS | 100 | KHz |
| $V_{CC}$ | Supply Voltage | 5.0 | Volts |

| Notes : | | EPA810-XX | EPA810-XX-RC |
|---|---|---|---|
| 1. Assembly Process (Solder Composition) | (Leadframe) | SnPb | Sn |
| | (Assembly Solder) | SnPb | SnPb (RoHS exemption 7a) |
| 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

PCA ELECTRONICS, INC.
16799 SCHOENBORN ST.
NORTH HILLS, CA 91343

Product performance is limited to specified parameters. Data is subject to change without prior notice.



TEL: (818) 892-0761
FAX: (818) 894-5791
http://www.pca.com