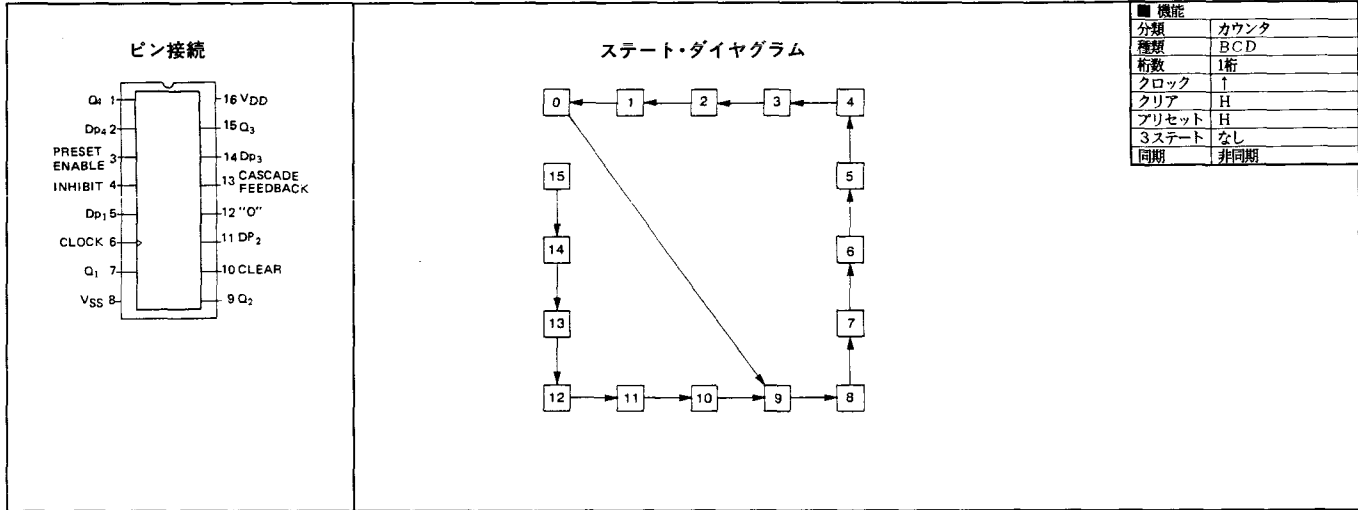


## 4522B Programmable BCD Counter



### 特徴

- ・ 4ビット同期式BCDダウン・カウンタ
- ・ 非同期クリア、プリセット、およびクロック・インヒビット機能を備える。プリセット入力によりプログラマブル分周回路を構成可能
- ・ プログラマブル周波数デバイダ、シンセサイザなどに応用できる

### 真理値表

|       |       | Inputs  |               |                  | Output |   | Resulting Function          |
|-------|-------|---------|---------------|------------------|--------|---|-----------------------------|
| Clock | Reset | Inhibit | Preset Enable | Cascade Feedback | "0"    |   |                             |
| X     | H     | X       | L             | L                | L      | L | Asynchronous reset*         |
| X     | H     | X       | H             | L                | H      | H | Asynchronous reset          |
| X     | H     | X       | X             | H                | H      | H | Asynchronous reset          |
| X     | L     | X       | H             | X                | L      | L | Asynchronous preset         |
|       | L     |         | H             | L                | X      | L | Decrement inhibited         |
|       | L     |         | L             | X                | L      | L | Decrement inhibited         |
|       | L     |         | L             | L                | L      | L | No change** (inactive edge) |
|       | L     |         | L             | L                | L      | L | No change** (inactive edge) |
|       | L     |         | L             | L                | L      | L | Decrement**                 |
|       | L     |         | L             | L                | L      | L | Decrement**                 |

X = Don't Care

Notes:  
 \* Output "0" is low when reset goes high only if PE and CF are low.  
 \*\* Output "0" is high when reset is low, only if CF is high and count is 0000.

### ■ スイッチング特性

| Parameter                          | Switching Characteristics |     |      |     |
|------------------------------------|---------------------------|-----|------|-----|
|                                    | VDD                       | typ | max  | 単位  |
| t <sub>r</sub>                     | 5V                        | 100 | 200  | ns  |
|                                    | 10V                       | 50  | 100  | ns  |
|                                    | 15V                       | 40  | 80   | ns  |
| t <sub>f</sub>                     | 5V                        | 100 | 200  | ns  |
|                                    | 10V                       | 50  | 100  | ns  |
|                                    | 15V                       | 40  | 80   | ns  |
| t <sub>PLH</sub><br>(CLK, INH → Q) | 5V                        | 550 | 1100 | ns  |
|                                    | 10V                       | 225 | 450  | ns  |
|                                    | 15V                       | 160 | 320  | ns  |
| t <sub>PHL</sub><br>(CLK, INH → Q) | 5V                        | 550 | 1100 | ns  |
|                                    | 10V                       | 225 | 450  | ns  |
|                                    | 15V                       | 160 | 320  | ns  |
| t <sub>PLH</sub><br>(Pn → Q)       | 5V                        | 260 | 520  | ns  |
|                                    | 10V                       | 120 | 240  | ns  |
|                                    | 15V                       | 100 | 200  | ns  |
| t <sub>PHL</sub><br>(Pn → Q)       | 5V                        | 260 | 520  | ns  |
|                                    | 10V                       | 120 | 240  | ns  |
|                                    | 15V                       | 100 | 200  | ns  |
| f <sub>CP</sub>                    | VDD                       | min | typ  | 単位  |
|                                    | 5V                        | 1.5 | 2.0  | MHz |
|                                    | 10V                       | 3.0 | 5.0  | MHz |
|                                    | 15V                       | 4.0 | 6.6  | MHz |

### ■ メーカー別相当品

| メーカー | 型名        | パッケージ |     |
|------|-----------|-------|-----|
|      |           | DIP   | SOP |
| 沖    |           |       |     |
| 三洋   |           |       |     |
| JRC  |           |       |     |
| 東芝   | TC4522BP  | ●     | ●   |
| 日電   | UPD4522BC | ●     | ●   |
| 日立   | HD14522B  | ●     |     |
| 富士通  |           |       |     |
| 松下   | MN4522B   | ●     | ●   |
| ローム  |           |       |     |
| MOT  | MC14522B  | ●     | ●   |
| NS   | CD4522B   | ●     |     |
| RCA  |           |       |     |
| SGS  |           |       |     |
| SIG  | HEF4522BP | ●     | ●   |
| SSS  | SCL4522B  | ●     | ●   |