

## Description

The APX823/APX824/APX825A family of supervisors provides circuit initialization and timing supervision, primarily for DSP and processor-based systems.

During power-on,  $\overline{\text{RESET}}$  is asserted when supply voltage  $V_{CC}$  becomes higher than 1.1V. Thereafter, the supply voltage supervisor monitors  $V_{CC}$  and keeps  $\overline{\text{RESET}}$  active as long as  $V_{CC}$  remains below the threshold voltage  $V_{TH-}$ . An internal timer delays the return of the output to the inactive state (high) to ensure proper system reset. The delay time,  $t_d$  starts after  $V_{CC}$  has risen above the threshold voltage  $V_{TH-}$ . When the supply voltage drops below the threshold voltage  $V_{TH-}$ , the output becomes active (low) again. No external components are required. All the devices of this family have a fixed-sense threshold voltage  $V_{TH-}$  set by an internal voltage divider.

The APX823/APX825A devices incorporate a manual reset input,  $\overline{\text{MR}}$ . A low level at  $\overline{\text{MR}}$  causes  $\overline{\text{RESET}}$  to become active. The APX824/APX825A devices include a high-level output  $\overline{\text{RESET}}$ . APX823/APX824/APX825A have a watchdog timer that is periodically triggered by a positive or negative transition at WDI. When the supervising system fails to retrigger the watchdog circuit within the time-out interval,  $t_{\text{tout}}$ ,  $\overline{\text{RESET}}$  becomes active for the time period  $t_d$ . This event also reinitializes the watchdog timer. Leaving WDI unconnected disables the watchdog.

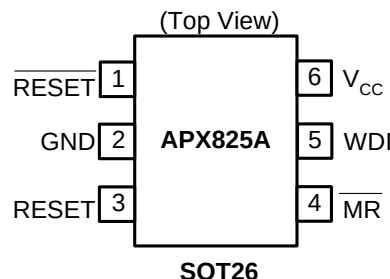
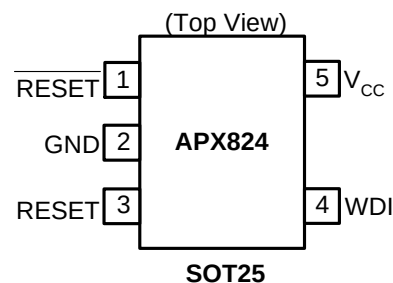
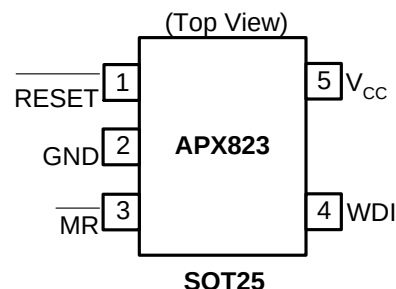
In applications where the input to the WDI pin may be active (transitioning high and low) when the APX823/APX824/APX825A asserting  $\overline{\text{RESET}}$  the APX823/APX824/APX825A does not return to a non-reset state when the input voltage is above  $V_t$ . The product spectrum is designed for supply voltage of 2.5V, 3V, 3.3V and 5V. The circuits are available in a SOT25 and SOT26 packages. The APX823/APX824/APX825A devices are characterized for operation over a temperature range of -40°C to 105°C.

## Features

- Power-on reset generator with fixed delay time of 200ms Typ
- Manual reset input (APX823/APX825A)
- Reset output available in active-low (APX823/APX824/APX825A), active-high (APX824/APX825A)
- Supply voltage supervision range 2.5V, 3V, 3.3V, 5V
- Watchdog timer
- Supply current of 30µA (Typ.)
- Temperature range: -40°C to 85°C
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**
- **For automotive applications requiring specific change control (i.e. parts qualified to AEC-Q100/101/104/200, PPAP capable, and manufactured in IATF 16949 certified facilities), please [contact us](https://www.diodes.com/contact-us) or your local Diodes representative. <https://www.diodes.com/quality/product-definitions/>**

Notes: 1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.  
 2. See [http://www.diodes.com/quality/lead\\_free.html](http://www.diodes.com/quality/lead_free.html) for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.  
 3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

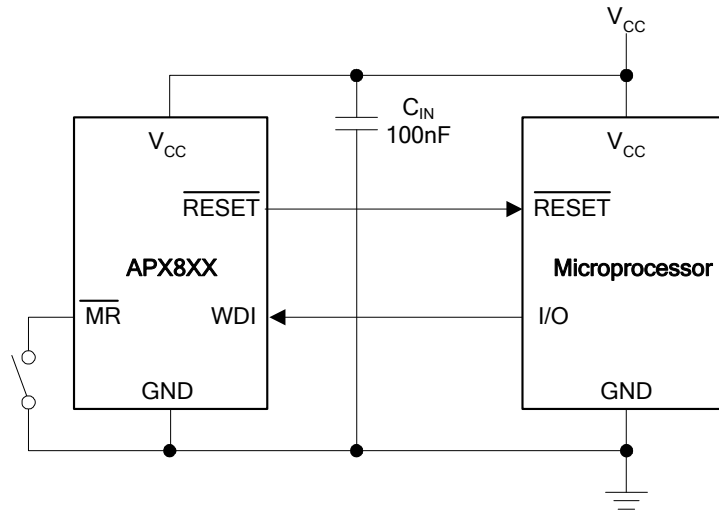
## Pin Assignments



## Applications

- Applications using DSPs, microcontrollers, or microprocessors
- Industrial equipment
- Programmable controls
- Portable/battery-powered equipment
- Intelligent instruments
- Wireless communications systems
- Notebook/desktop computers

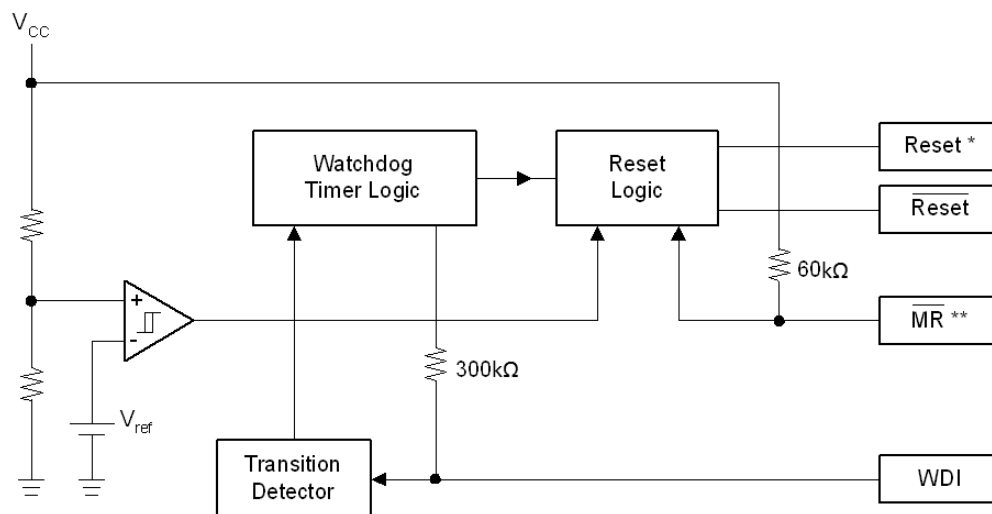
## Typical Application Circuit



## Pin Descriptions

| Pin Name        | Description             |
|-----------------|-------------------------|
| GND             | Ground                  |
| RESET (RESET)   | Reset output pin        |
| V <sub>CC</sub> | Operating voltage input |
| WDI             | Watchdog input          |
| MR              | Manual reset            |

## Functional Block Diagram



\* APX824/APX825A

\*\* APX823/APX825A

## Absolute Maximum Ratings (Over operating ambient temperature range, unless otherwise noted)\*

| Symbol             | Parameter                                                       |                                                |       | Rating                         | Unit  |
|--------------------|-----------------------------------------------------------------|------------------------------------------------|-------|--------------------------------|-------|
| ESD HBM            | Human Body Model ESD Protection                                 |                                                |       | 5                              | KV    |
| ESD MM             | Machine Model ESD Protection                                    |                                                |       | 200                            | V     |
| V <sub>CC</sub>    | Supply Voltage                                                  |                                                |       | 6.0                            | V     |
| V <sub>RESET</sub> | RESET, $\overline{\text{RESET}}$ , $\overline{\text{MR}}$ , WDI |                                                |       | -0.3 to (V <sub>CC</sub> +0.3) | V     |
| I <sub>CC</sub>    | Input Current V <sub>CC</sub>                                   |                                                |       | 20                             | mA    |
| I <sub>O</sub>     | Maximum High Output Current                                     |                                                |       | 20                             | mA    |
| P <sub>D</sub>     | Continuous Total Power Dissipation                              | Derating Factor Above<br>T <sub>A</sub> = 25°C | SOT25 | 6.2                            | mW/°C |
|                    |                                                                 |                                                | SOT26 | 5.8                            |       |
|                    |                                                                 | T <sub>A</sub> = 25°C Power Rating             | SOT25 | 500                            | mW    |
|                    |                                                                 |                                                | SOT26 | 470                            |       |
|                    |                                                                 | T <sub>A</sub> = 70°C Power Rating             | SOT25 | 220                            | mW    |
|                    |                                                                 |                                                | SOT26 | 210                            |       |
|                    |                                                                 | T <sub>A</sub> = 85°C Power Rating             | SOT25 | 125                            | mW    |
|                    |                                                                 |                                                | SOT26 | 120                            |       |
| T <sub>OP</sub>    | Operating Junction Temperature Range                            |                                                |       | -40 to 105                     | °C    |
| T <sub>ST</sub>    | Storage Temperature Range                                       |                                                |       | -65 to 150                     | °C    |

\* Stresses beyond those listed under "absolute maximum ratings" may cause permanent damage to the device. These are stress ratings only, and functional operation of the device at these or any other conditions beyond those indicated under "recommended operating conditions" is not implied. Exposure to absolute-maximum-rated conditions for extended periods may affect device reliability.

## Recommended Operating Conditions

| Symbol          | Parameter                                                         | Min                   | Max                    | Unit  |
|-----------------|-------------------------------------------------------------------|-----------------------|------------------------|-------|
| V <sub>CC</sub> | Supply Voltage                                                    | 1.1                   | 5.5                    | V     |
| V <sub>IN</sub> | Input Voltage                                                     | 0                     | (V <sub>CC</sub> +0.3) | V     |
| V <sub>IH</sub> | High-level Input Voltage at MR and WDI                            | 0.7 × V <sub>CC</sub> | -                      | V     |
| V <sub>IL</sub> | Low-level Voltage                                                 | -                     | 0.3 × V <sub>CC</sub>  | V     |
| Δt/ΔV           | Input Transition Rise and Fall Rate at MR or WDI                  | -                     | 100                    | ns/V  |
| T <sub>A</sub>  | Operating Ambient Temperature Range                               | -40                   | 85                     | °C    |
| T <sub>R</sub>  | V <sub>CC</sub> Rising Time (V <sub>CC</sub> = 0~V <sub>T</sub> ) | -                     | 100                    | V/ μS |

# Electrical Characteristics

(Over recommended operating ambient temperature range, unless otherwise noted)

| Symbol             | Parameter                                       |                           |                                  | Test Conditions                                                    | Min                   | Typ. | Max  | Unit |
|--------------------|-------------------------------------------------|---------------------------|----------------------------------|--------------------------------------------------------------------|-----------------------|------|------|------|
| V <sub>OH</sub>    | High-level Output Voltage                       | RESET                     | APX823/APX824/APX825A - 29/26/23 | V <sub>CC</sub> = V <sub>TH</sub> +0.2V<br>I <sub>OH</sub> =-20μA  | 0.8×V <sub>CC</sub>   | -    | -    | V    |
|                    |                                                 |                           | APX823/APX824/APX825A - 40/31    | V <sub>CC</sub> = V <sub>TH</sub> +0.2V<br>I <sub>OH</sub> =-30μA  |                       |      |      |      |
|                    |                                                 |                           | APX823/APX824/APX825A -46/44     | V <sub>CC</sub> = V <sub>TH</sub> +0.2V<br>I <sub>OH</sub> =-120μA | V <sub>CC</sub> -1.5V | -    | -    | V    |
|                    |                                                 | RESET                     | APX824/APX825A -29/26/23         | V <sub>CC</sub> ≥ 1.8V,<br>I <sub>OH</sub> = -100μA                | 0.8×V <sub>CC</sub>   | -    | -    | V    |
|                    |                                                 |                           | APX824/APX825A - 46/44/40/31     | V <sub>CC</sub> ≥ 1.8V,<br>I <sub>OH</sub> = -150μA                |                       |      |      |      |
| V <sub>OL</sub>    | Low-level Output Voltage                        | RESET                     | APX824/APX825A -29/26/23         | V <sub>CC</sub> = V <sub>TH</sub> +0.2V<br>I <sub>OL</sub> =1mA    | -                     | -    | 0.4  | V    |
|                    |                                                 |                           | APX824/APX825A -40/31            | V <sub>CC</sub> = V <sub>TH</sub> +0.2V<br>I <sub>OL</sub> =1.2mA  |                       |      |      |      |
|                    |                                                 |                           | APX824/APX825A -46/44            | V <sub>CC</sub> = V <sub>TH</sub> +0.2V<br>I <sub>OL</sub> =3mA    |                       |      |      |      |
|                    |                                                 | RESET                     | APX823/APX824/APX825A - 29/26/23 | V <sub>CC</sub> = V <sub>TH</sub> -0.2V<br>I <sub>OL</sub> =1mA    | -                     | -    | 0.4  | V    |
|                    |                                                 |                           | APX823/APX824/APX825A - 40/31    | V <sub>CC</sub> = V <sub>TH</sub> -0.2V<br>I <sub>OL</sub> =1.2mA  |                       |      |      |      |
|                    |                                                 |                           | APX823/APX824/APX825A - 46/44    | V <sub>CC</sub> = V <sub>TH</sub> -0.2V<br>I <sub>OL</sub> =3mA    |                       |      |      |      |
| V <sub>RESET</sub> | Power-up Reset Voltage (Note 4)                 |                           |                                  | V <sub>CC</sub> ≥ 1.1V,<br>I <sub>OL</sub> =20μA                   | -                     | -    | 0.4  | V    |
| V <sub>TH-</sub>   | Negative-going Input Threshold Voltage (Note 5) | APX823/APX824/APX825A -23 |                                  | T <sub>A</sub> = 0°C -85°C                                         | 2.21                  | 2.25 | 2.30 | V    |
|                    |                                                 | APX823/APX824/APX825A -26 |                                  |                                                                    | 2.59                  | 2.63 | 2.69 |      |
|                    |                                                 | APX823/APX824/APX825A -29 |                                  |                                                                    | 2.88                  | 2.93 | 3.00 |      |
|                    |                                                 | APX823/APX824/APX825A -31 |                                  |                                                                    | 3.02                  | 3.08 | 3.15 |      |
|                    |                                                 | APX823/APX824/APX825A -40 |                                  |                                                                    | 3.93                  | 4.00 | 4.08 |      |
|                    |                                                 | APX823/APX824/APX825A -44 |                                  |                                                                    | 4.31                  | 4.38 | 4.47 |      |
|                    |                                                 | APX823/APX824/APX825A -46 |                                  |                                                                    | 4.56                  | 4.63 | 4.72 |      |
|                    |                                                 | APX823/APX824/APX825A -23 |                                  | T <sub>A</sub> = -40°C -85°C                                       | 2.15                  | 2.25 | 2.34 | V    |
|                    |                                                 | APX823/APX824/APX825A -26 |                                  |                                                                    | 2.51                  | 2.63 | 2.74 |      |
|                    |                                                 | APX823/APX824/APX825A -29 |                                  |                                                                    | 2.80                  | 2.93 | 3.05 |      |
|                    |                                                 | APX823/APX824/APX825A -31 |                                  |                                                                    | 2.94                  | 3.08 | 3.20 |      |
|                    |                                                 | APX823/APX824/APX825A -40 |                                  |                                                                    | 3.82                  | 4.00 | 4.16 |      |
|                    |                                                 | APX823/APX824/APX825A -44 |                                  |                                                                    | 4.19                  | 4.38 | 4.56 |      |
|                    |                                                 | APX823/APX824/APX825A -46 |                                  |                                                                    | 4.43                  | 4.63 | 4.82 |      |

Notes: 4. The lowest supply voltage at which RESET becomes active.  $T_R$ ,  $V_{CC} \geq 15\mu s/V$ .  
5. To ensure best stability of the threshold voltage, a bypass capacitor (ceramic, 0.1 $\mu F$ ) should be placed near the supply terminals.

**Electrical Characteristics** (continued)

| Symbol              | Parameter                                |                                                                | Test Conditions                                          | Min | Typ. | Max | Unit   |
|---------------------|------------------------------------------|----------------------------------------------------------------|----------------------------------------------------------|-----|------|-----|--------|
| V <sub>hys</sub>    | Hysteresis at V <sub>CC</sub> Input      | APX823/APX824/APX825A -23                                      |                                                          | -   | 50   | -   | mV     |
|                     |                                          | APX823/APX824/APX825A -26                                      |                                                          |     |      |     |        |
|                     |                                          | APX823/APX824/APX825A -29                                      |                                                          |     |      |     |        |
|                     |                                          | APX823/APX824/APX825A -31                                      |                                                          | -   | 50   | -   |        |
|                     |                                          | APX823/APX824/APX825A -40                                      |                                                          |     |      |     |        |
|                     |                                          | APX823/APX824/APX825A -44                                      |                                                          |     |      |     |        |
|                     |                                          | APX823/APX824/APX825A -46                                      |                                                          |     |      |     |        |
| T <sub>S</sub>      | Set-up Time                              | V <sub>CC</sub> = V <sub>TH</sub> to (V <sub>TH</sub> – 100mV) |                                                          |     | 20   |     | μs     |
| I <sub>IH(AV)</sub> | Average High-level Input Current         | WDI                                                            | WDI=V <sub>CC</sub> ,<br>Time average (dc=88%)           | -   | 120  | -   | μA     |
| I <sub>IL(AV)</sub> | Average Low-level Input Current          |                                                                | WDI=0.3V,<br>V <sub>CC</sub> =5.5V time average (dc=12%) | -   | -15  | -   | μA     |
| I <sub>IH</sub>     | High-level Input Current                 | WDI                                                            | WDI=V <sub>CC</sub>                                      | -   | 120  | 160 | μA     |
| I <sub>IL</sub>     | Low-level Input Current                  | WDI                                                            | WDI=0.3V,<br>V <sub>CC</sub> =5.5V                       | -   | 120  | 160 | μA     |
| I <sub>CC</sub>     | Supply Current                           | WDI and MR Unconnected, Outputs unconnected                    | V <sub>CC</sub> = <u>V<sub>TH</sub></u> +0.2V            | -   | 30   | 40  | μA     |
|                     | Internal Pull-up Resistor at MR          |                                                                |                                                          | -   | 60   | -   | kΩ     |
| TC                  | V <sub>OUT</sub> Temperature Coefficient |                                                                |                                                          |     | 50   | -   | ppm/°C |
| C <sub>i</sub>      | Input Capacitance at <u>MR</u> , WDI     |                                                                | V <sub>I</sub> = 0V to 5.5V                              | -   | 5    | -   | pF     |
| θ <sub>JA</sub>     | Thermal Resistance Junction-to-Ambient   |                                                                | SOT25 (Note 6)                                           |     | 161  |     | °C/W   |
|                     |                                          |                                                                | SOT26 (Note 6)                                           |     | 169  |     |        |
| θ <sub>JC</sub>     | Thermal Resistance Junction-to-Case      |                                                                | SOT25 (Note 6)                                           |     | 27   |     | °C/W   |
|                     |                                          |                                                                | SOT26 (Note 6)                                           |     | 28   |     |        |

Note: 6. Test condition for SOT25 and SOT26: Devices mounted on FR-4 substrate PC board, 2oz copper, with minimum recommended pad layout.

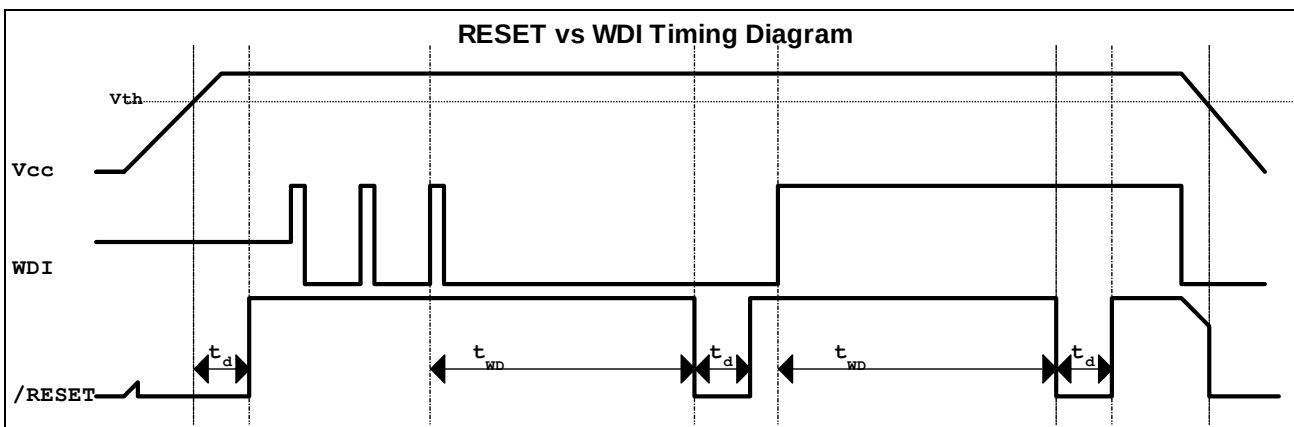
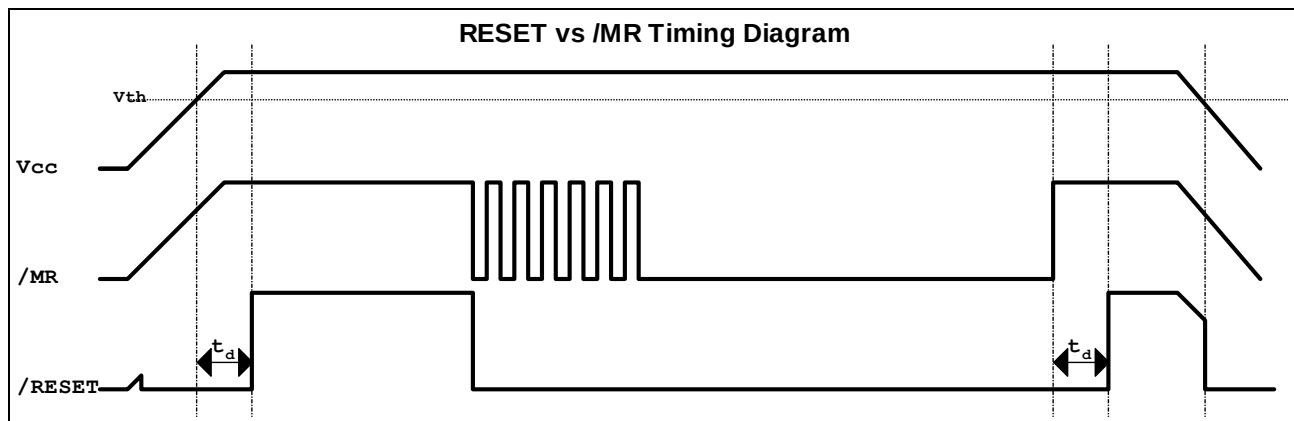
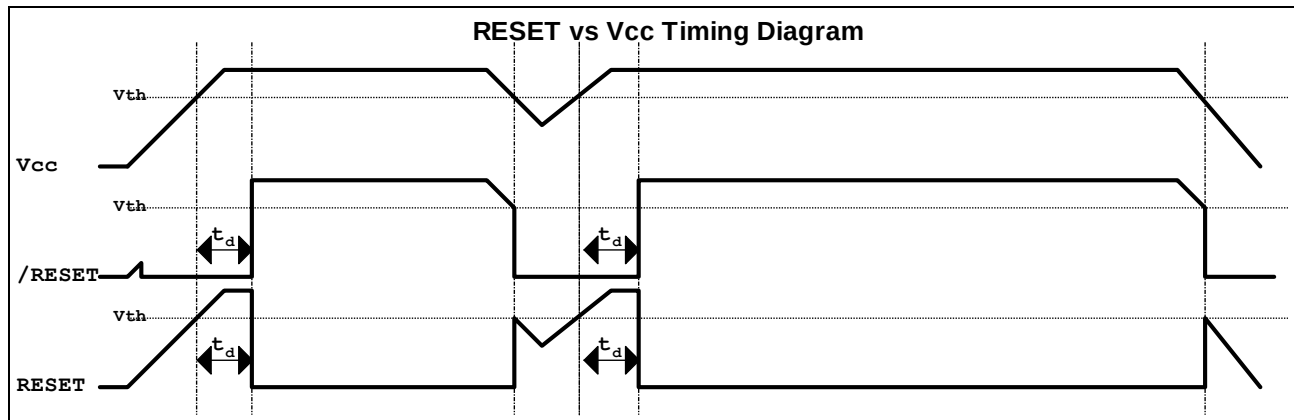
## Timing Requirements (@ $R_L = 1\text{m}\Omega$ , $C_L = 50\text{pF}$ , $T_A = 25^\circ\text{C}$ )

| Symbol | Parameter   | Test Conditions                                                                                                                                           | Min        | Typ. | Max | Unit      |
|--------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------|-----|-----------|
| $t_w$  | Pulse Width | at MR<br>$V_{CC} \geq \underline{V_{TH}} + 0.2\text{V}$ , $\underline{V_{IL}} = 0.3 \times V_{CC}$ , $\underline{V_{IH}} = 0.7 \times \underline{V_{CC}}$ | <u>100</u> | -    | -   | <u>ns</u> |
|        |             | at WDI<br>$V_{CC} \geq \underline{V_{TH}} + 0.2\text{V}$ , $\underline{V_{IL}} = 0.3 \times V_{CC}$ , $\underline{V_{IH}} = 0.7 \times V_{CC}$            | <u>50</u>  | -    | -   | ns        |

## Switching Characteristics (@ $R_L = 1\text{m}\Omega$ , $C_L = 50\text{pF}$ , $T_A = 25^\circ\text{C}$ )

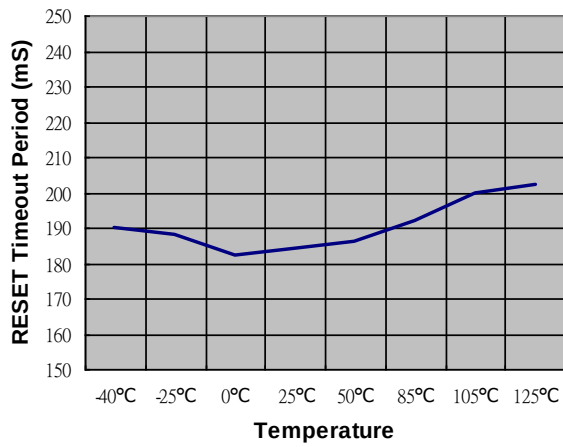
| Symbol    | Parameter                                          | Test Conditions                                                                                                                                                               | Min         | Typ. | Max        | Unit          |
|-----------|----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|------|------------|---------------|
| $t_{out}$ | Watchdog Time Out                                  | APX823/APX824/APX825A<br>$V_{CC} \geq \underline{V_{TH}} + 0.2\text{V}$ ,<br>See timing diagram                                                                               | <u>1.12</u> | 1.6  | <u>2.4</u> | s             |
| $t_d$     | Delay Time                                         | APX823/APX824/APX825A<br>$V_{CC} \geq \underline{V_{TH}} + 0.2\text{V}$ ,<br>See timing diagram                                                                               | 140         | 200  | 280        | ms            |
| $t_{PHL}$ | Propagation (Delay) Time, High-to-low-level Output | MR to RESET delay (APX823/APX825A)<br>$V_{CC} > \underline{V_{TH}} + 0.2\text{V}$ ,<br>$\underline{V_{IL}} = 0.3 \times V_{CC}$ ,<br>$\underline{V_{IH}} = 0.7 \times V_{CC}$ | -           | -    | 0.1        | $\mu\text{s}$ |
|           |                                                    | $V_{CC}$ to RESET delay<br>$\underline{V_{IL}} = \underline{V_{TH}} - 0.2\text{V}$ ,<br>$\underline{V_{IH}} = \underline{V_{TH}} + 0.2\text{V}$                               | -           | -    | 25         | $\mu\text{s}$ |
| $t_{PLH}$ | Propagation (Delay) Time, Low-to-high-level Output | MR to RESET delay (APX824/APX825A)<br>$V_{CC} > \underline{V_{TH}} + 0.2\text{V}$ ,<br>$\underline{V_{IL}} = 0.3 \times V_{CC}$ ,<br>$\underline{V_{IH}} = 0.7 \times V_{CC}$ | -           | -    | 0.1        | $\mu\text{s}$ |
|           |                                                    | $V_{CC}$ to RESET delay (APX824/APX825A)<br>$\underline{V_{IL}} = \underline{V_{TH}} - 0.2\text{V}$ ,<br>$\underline{V_{IH}} = \underline{V_{TH}} + 0.2\text{V}$              | -           | -    | 25         | $\mu\text{s}$ |

## Timing Diagram

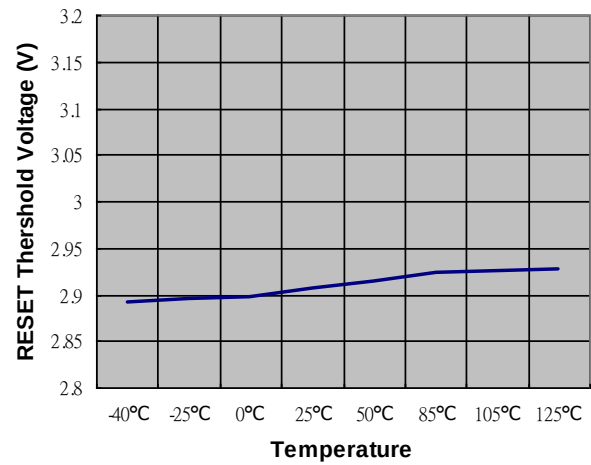


## Typical Characteristics

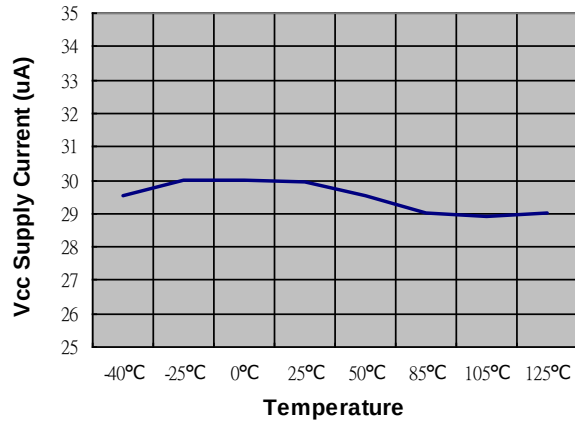
RESET Timeout Period vs. Temperature



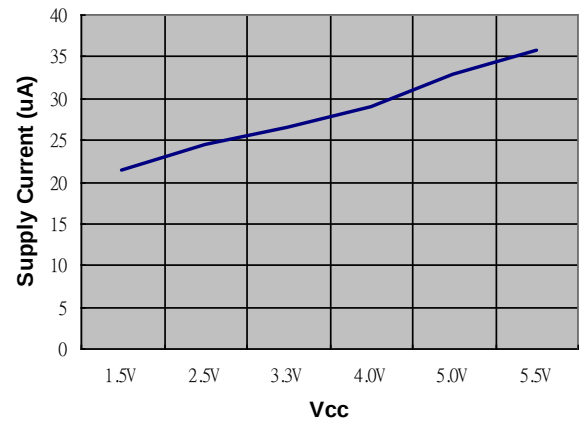
RESET Threshold Voltage vs. Temperature



Vcc Supply Current vs. Temperature  
(Vcc=3.3V Vth=2.93V)

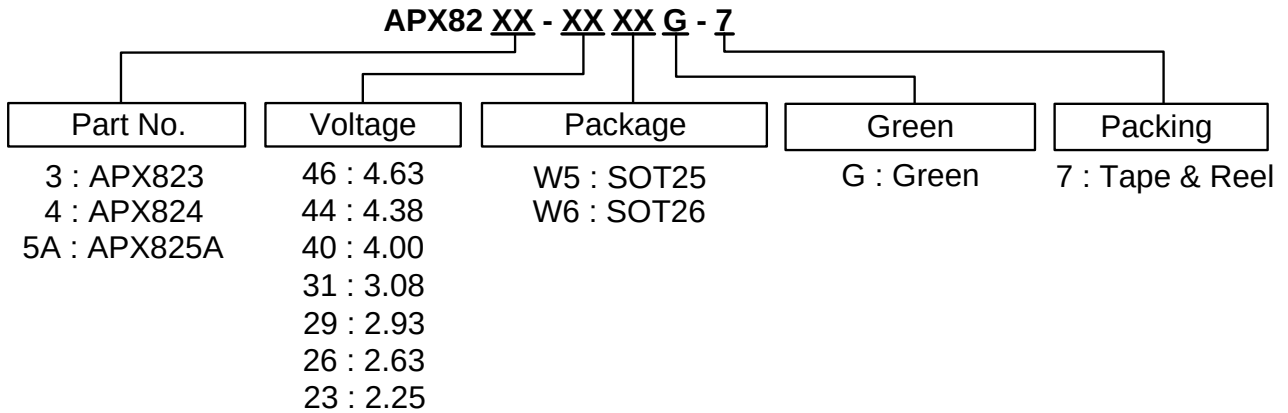


Supply Current vs. Vcc





## Ordering Information



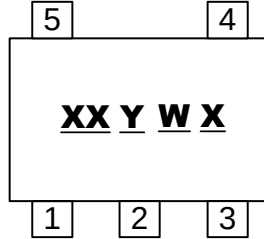
| Orderable Part Number | Package Code | Package<br>(Note 7) | Packing  |                |                       |
|-----------------------|--------------|---------------------|----------|----------------|-----------------------|
|                       |              |                     | Quantity | Carrier        | Part Number<br>Suffix |
| APX823-XXW5G-7        | W5           | SOT25               | 3,000    | 7" Tape & Reel | -7                    |
| APX824-XXW5G-7        | W5           | SOT25               | 3,000    | 7" Tape & Reel | -7                    |
| APX825A-XXW6G-7       | W6           | SOT26               | 3,000    | 7" Tape & Reel | -7                    |

Note: 7. For packaging details, go to our website at <https://www.diodes.com/design/support/packaging/diodes-packaging/>.

## Marking Information

### (1) SOT25

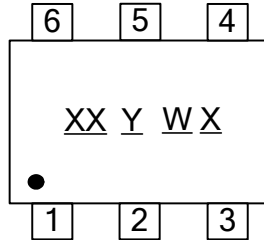
#### ( Top View )



XX : Identification code  
Y : Year 0~9  
W : Week : A~Z : 1~26 week;  
a~z : 27~52 week; z represents  
52 and 53 week  
X : A~Z : Green

### (2) SOT26

#### ( Top View )



XX : Identification code  
Y : Year 0~9  
W : Week : A~Z : 1~26 week;  
a~z : 27~52 week; z represents  
52 and 53 week  
X : A~Z : Green

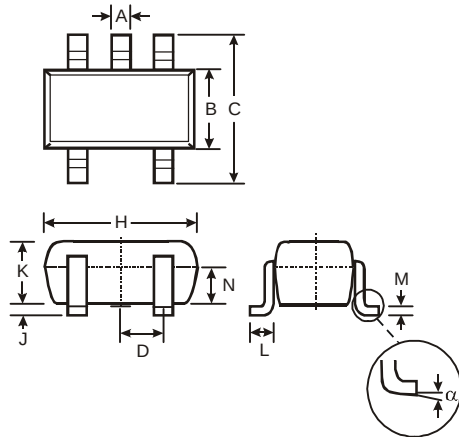
## Marking Table

| Device       | Package | Identification Code |
|--------------|---------|---------------------|
| APX823-46W5  | SOT25   | W1                  |
| APX823-44W5  | SOT25   | W2                  |
| APX823-40W5  | SOT25   | W3                  |
| APX823-31W5  | SOT25   | W4                  |
| APX823-29W5  | SOT25   | W5                  |
| APX823-26W5  | SOT25   | W6                  |
| APX823-23W5  | SOT25   | W7                  |
| APX824-46W5  | SOT25   | T2                  |
| APX824-44W5  | SOT25   | T3                  |
| APX824-40W5  | SOT25   | T4                  |
| APX824-31W5  | SOT25   | T5                  |
| APX824-29W5  | SOT25   | T6                  |
| APX824-26W5  | SOT25   | T7                  |
| APX824-23W5  | SOT25   | T8                  |
| APX825A-46W6 | SOT26   | T9                  |
| APX825A-44W6 | SOT26   | TA                  |
| APX825A-40W6 | SOT26   | TB                  |
| APX825A-31W6 | SOT26   | TC                  |
| APX825A-29W6 | SOT26   | TD                  |
| APX825A-26W6 | SOT26   | TE                  |
| APX825A-23W6 | SOT26   | TF                  |

## Package Outline Dimensions

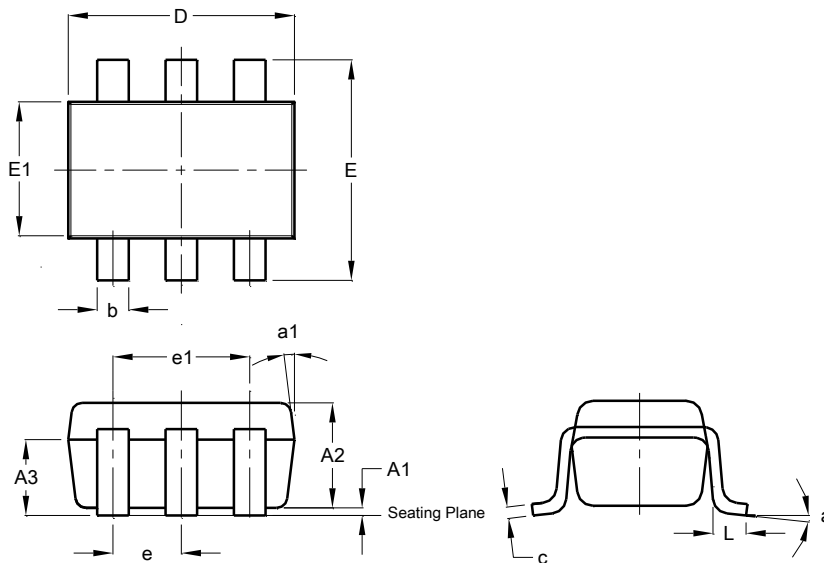
Please see <http://www.diodes.com/package-outlines.html> for the latest version.

SOT25



| SOT25                |       |      |      |
|----------------------|-------|------|------|
| Dim                  | Min   | Max  | Typ  |
| A                    | 0.35  | 0.50 | 0.38 |
| B                    | 1.50  | 1.70 | 1.60 |
| C                    | 2.70  | 3.00 | 2.80 |
| D                    | -     | -    | 0.95 |
| H                    | 2.90  | 3.10 | 3.00 |
| J                    | 0.013 | 0.10 | 0.05 |
| K                    | 1.00  | 1.30 | 1.10 |
| L                    | 0.35  | 0.55 | 0.40 |
| M                    | 0.10  | 0.20 | 0.15 |
| N                    | 0.70  | 0.80 | 0.75 |
| $\alpha$             | 0°    | 8°   | -    |
| All Dimensions in mm |       |      |      |

SOT26

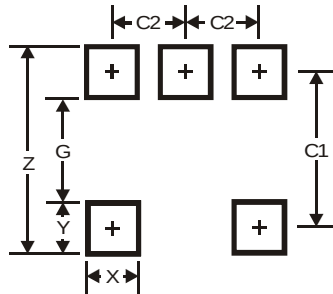


| SOT26                |       |      |      |
|----------------------|-------|------|------|
| Dim                  | Min   | Max  | Typ  |
| A1                   | 0.013 | 0.10 | 0.05 |
| A2                   | 1.00  | 1.30 | 1.10 |
| A3                   | 0.70  | 0.80 | 0.75 |
| b                    | 0.35  | 0.50 | 0.38 |
| c                    | 0.10  | 0.20 | 0.15 |
| D                    | 2.90  | 3.10 | 3.00 |
| e                    | -     | -    | 0.95 |
| e1                   | -     | -    | 1.90 |
| E                    | 2.70  | 3.00 | 2.80 |
| E1                   | 1.50  | 1.70 | 1.60 |
| L                    | 0.35  | 0.55 | 0.40 |
| a                    | -     | -    | 8°   |
| a1                   | -     | -    | 7°   |
| All Dimensions in mm |       |      |      |

## Suggested Pad Layout

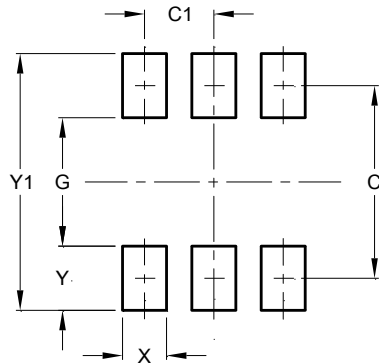
Please see <http://www.diodes.com/package-outlines.html> for the latest version.

SOT25



| Dimensions | Value |
|------------|-------|
| Z          | 3.20  |
| G          | 1.60  |
| X          | 0.55  |
| Y          | 0.80  |
| C1         | 2.40  |
| C2         | 0.95  |

SOT26



| Dimensions | Value (in mm) |
|------------|---------------|
| C          | 2.40          |
| C1         | 0.95          |
| G          | 1.60          |
| X          | 0.55          |
| Y          | 0.80          |
| Y1         | 3.20          |

## Mechanical Data

- Moisture Sensitivity:
  - SOT25 Level 3 per J-STD-020
  - SOT26 Level 3 per J-STD-020
- Terminals: Finish — Matte Tin Plated Leads, Solderable per MIL-STD-202, Method 208 ③
- Weight:
  - SOT25: 0.0153 grams (Approximate)
  - SOT26: 0.016 grams (Approximate)

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