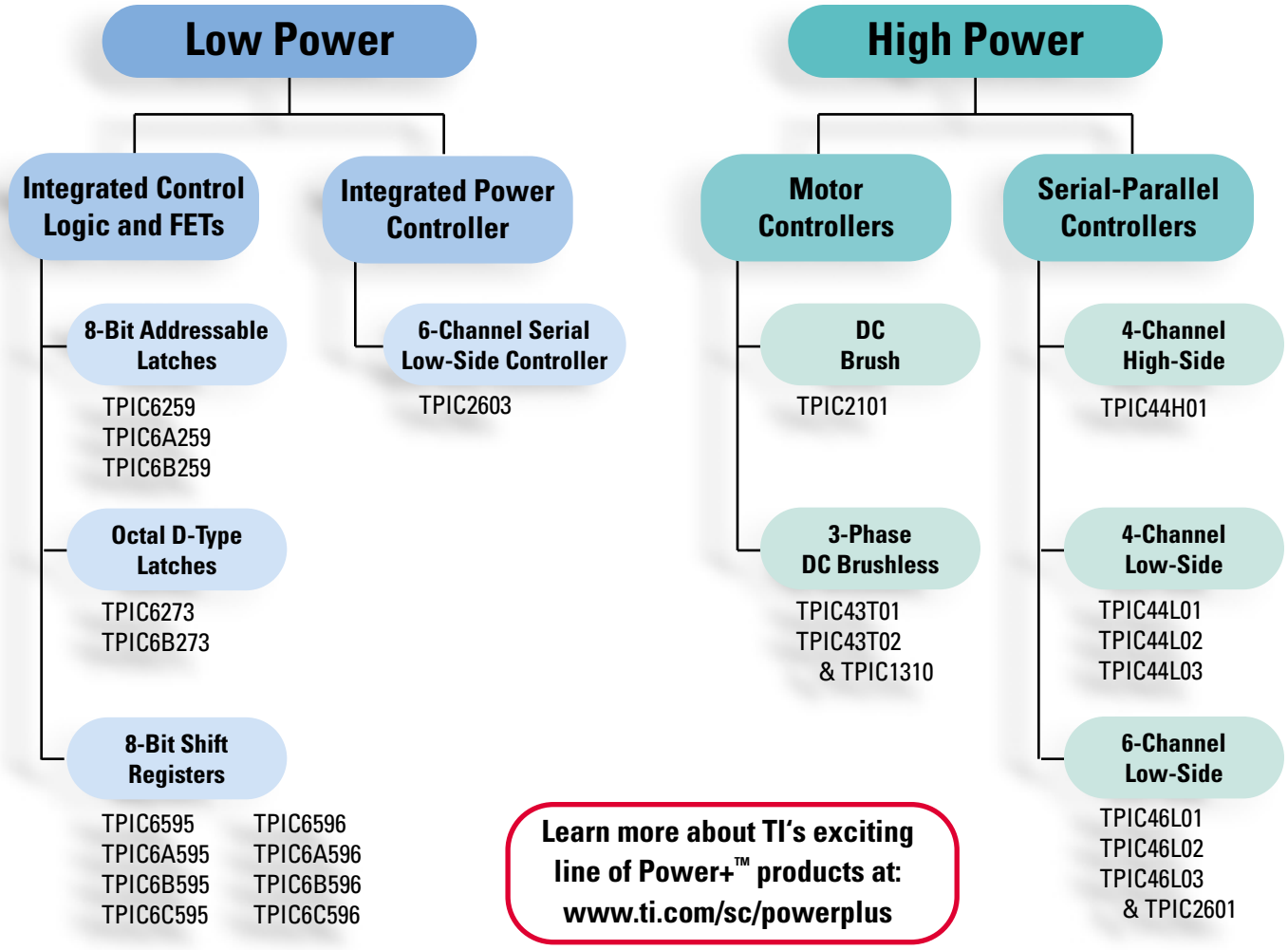
# Power Control Products

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## *Power+ Logic™: 8-Bit Devices*

| Device | Description | $V_{DS}$ max (V) | $I_{CC}$ typ (mA) | $I_O$ (A) | $I_{PEAK}$ (A) | $r_{DS(on)}$ typ (W) | $E_{AS}$ max (mJ) | $t_{PLH}$ typ (ns) | ESD max (kV) | Pin#/Pkg |
|---|---|---|---|---|---|---|---|---|---|---|
| TPIC6259 | Addressable Latch | 45 | 15 | 0.25 | 0.75 | 1.3 | 75 | 625 | 3 | 20/DW,N |
| TPIC6273 | D-Type Latch | 45 | 15 | 0.25 | 0.75 | 1.3 | 75 | 625 | 3 | 20/DW,N |
| TPIC6595 | Shift Register | 45 | 15 | 0.25 | 0.75 | 1.3 | 75 | 650 | 3 | 20/DW,N |
| TPIC6596 | Shift Register | 45 | 15 | 0.25 | 0.75 | 1.3 | 75 | 650 | 3 | 20/DW,N |
| TPIC6A259 [1] | Addressable Latch | 50 | 500 | 0.35 | 1.1 | 1 | 75 | 125 | 2.5 | 20/NE,24/DW |
| TPIC6A595 [1] | Shift Register | 50 | 500 | 0.35 | 1.1 | 1 | 75 | 125 | 2.5 | 20/NE,24/DW |
| TPIC6A596 [1] | Shift Register | 50 | 500 | 0.35 | 1.1 | 1 | 75 | 125 | 2.5 | 20/NE,24/DW |
| TPIC6B259 [2] | Addressable Latch | 50 | 20 | 0.15 | 0.5 | 5 | 30 | 150 | 2.5 | 20/DW,N |
| TPIC6B273 [2] | D-Type Latch | 50 | 20 | 0.15 | 0.5 | 5 | 30 | 150 | 2.5 | 20/DW,N |
| TPIC6B595 [2] | Shift Register | 50 | 20 | 0.15 | 0.5 | 5 | 30 | 150 | 2.5 | 20/DW,N |
| TPIC6B596 [2] | Shift Register | 50 | 20 | 0.15 | 0.5 | 5 | 30 | 150 | 2.5 | 20/DW,N |
| TPIC6C595 [2] | Shift Register | 33 | 20 | 0.1 | 0.25 | 7 | 30 | 80 | 2.5 | 16/D,N |
| TPIC6C596 [2] | Shift Register | 33 | 20 | 0.1 | 0.25 | 7 | 30 | 80 | 2.5 | 16/D,N |

[1] Short-circuit and current-limit protection [2] Current-limit capability

*(Continued on back)*

## *Power+™ Control*

| Device | Description | $V_{BAT}$ range (V) | $V_{DS}$ max (V) | $I_D/I_{PEAK}$ (A) | $r_{DS(on)}$ typ (W) | Freq (kHz) | Pin#/Pkg |
|---|---|---|---|---|---|---|---|
| TPIC0107B [1] | PWM Control Intelligent H-Bridge | 6 to 18 | 40 | 3/5 | 0.28 | 2 | 20/DWP |
| TPIC0108B [1] | PWM Control Intelligent H-Bridge | 6 to 18 | 40 | 3/5 | 0.28 | 2 | 20/DWP |
| TPIC2603 [1] | 6-Channel Serial Interface Low-Side Controller | 5.5 to 25 | 68 | 0.35/2.25 | 0.7 | 4000 | 20/NE,24/DW |

| Device | Description | $V_{BAT}$ range (V) | $I_{BAT}$ typ (mA) | $I_{GD}$ max (mA) | $f_{OSC}$ typ (kHz) | $t_r/t_f$ max (µs) | Pin#/Pkg |
|---|---|---|---|---|---|---|---|
| TPIC2101 [2] | DC Brush Motor Controller | 8 to 16 | 4 | 50 | 20 | 1/0.8 | 14/D,N |

| Device | Description | $V_{CC}$ range (V) | $V_{IT\pm(HL)}$ range (mV) | $I_{(LGX)/(UGX)}$ typ (mA) | $f_{PWM}$ typ (kHz) | $f_{OSC}/f_{OSC1}$ max (MHz) | Pin#/Pkg |
|---|---|---|---|---|---|---|---|
| TPIC43T01 [2] | Three-Phase DC Brushless Motor RPM Controller | 18 to 28 | ±4 to ±12 | ±10 | 22.7 | 10/10 | 38/DA |
| TPIC43T02 [2] | Three-Phase DC Brushless Motor RPM Controller | 18 to 28 | ±4 to ±12 | ±10 | 22.7 | 10/10 | 38/DA |

| Device | Description | $V_{BAT}$ range (V) | $V_{GATE}$ range (V) | $I_{BAT}$ typ (mA) | $f_{SCLK}$ max (MHz) | Pin#/Pkg |
|---|---|---|---|---|---|---|
| TPIC44H01 [1] | 4-Channel Serial/Parallel High-Side FET Pre-Driver | 8 to 24 | $V_{BAT}$+4 to $V_{BAT}$+18 | 4 | 5 | 32/DA |
| TPIC44L01 [1] | 4-Channel Serial/Parallel Low-Side FET Pre-Driver | 8 to 24 | 7 to 13.5 | 0.5 | 10 | 24/DB |
| TPIC44L02 [1] | 4-Channel Serial/Parallel Low-Side FET Pre-Driver | 8 to 24 | 7 to 13.5 | 0.5 | 10 | 24/DB |
| TPIC44L03 [1] | 4-Channel Serial/Parallel Low-Side FET Pre-Driver | 8 to 24 | 7 to 13.5 | 0.5 | 10 | 24/DB |
| TPIC46L01 [1] | 6-Channel Serial/Parallel Low-Side FET Pre-Driver | 8 to 24 | 7 to 13.5 | 0.5 | 10 | 28/DB |
| TPIC46L02 [1] | 6-Channel Serial/Parallel Low-Side FET Pre-Driver | 8 to 24 | 7 to 13.5 | 0.5 | 10 | 28/DB |
| TPIC46L03 [1] | 6-Channel Serial/Parallel Low-Side FET Pre-Driver | 8 to 24 | 7 to 13.5 | 0.5 | 10 | 28/DB |

[1] Fault protection and diagnostics [2] Fault protection

## *Power+ Arrays™*

| Device | Description | $V_{DS}$ max (V) | $V_{GS}$ typ (V) | $I_{CONT}$ (A) | $I_{PEAK}$ (A) | $r_{DS(on)}$ typ (W) | $E_{AS}$ max (mJ) | $t_{rr}$ typ (ns) | $Q_g$ typ (nC) | ESD max (kV) | Pin#/Pkg |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TPIC1310 | 3-Half H-Bridge Driver | 30 | 10 | 3 | 12 | 0.25 | | 30[1]/70[2] | 1.6 | 2 | 15/KTR,KTS |
| TPIC2601 | 6-Channel Common-Source Driver | 60 | 10 | 2 | 10 | 0.25 | 105 | 72 | 5.1 | 2 | 15/KTC |
| TPIC2701 | 7-Channel Common-Source Driver | 60 | 15 | 0.5 | 3 | 0.5 | 22 | 165 | 2.8 | | 16/N |

[1] High-side [2] Low-side

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