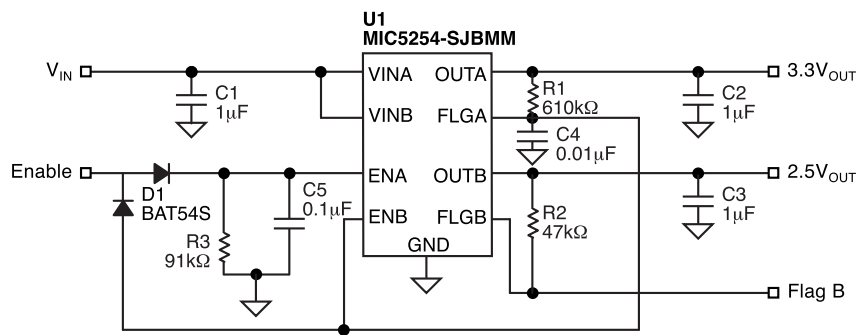


Description

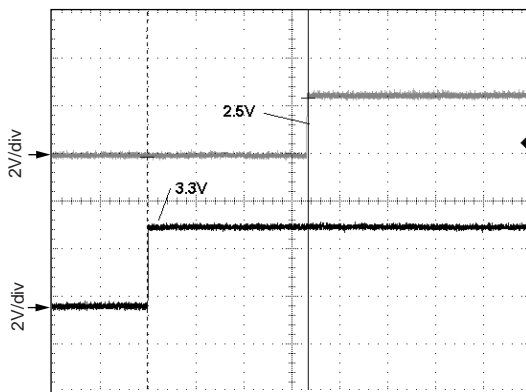
The circuit achieves power sequencing by allowing the secondary supply (2.5V) to only turn on when the primary (3.3V) supply is on. It also ensures that the secondary supply will never be on when the primary is off. During an enable high cycle, D1 is forward biased through the ENA pin, causing a quick turn-on of the primary supply (3.3V). ENB is held low through the FLGA pin and charges up at the RC time constant

of R1 and C4. This delays the secondary supply until after the primary supply has settled into its regulated voltage. When the enable is pulled low, D1 is forward biased through ENB. This causes C4 to discharge quickly, turning off the secondary supply quickly. ENA pin slowly discharges through R3 and C5 at their RC time constant.



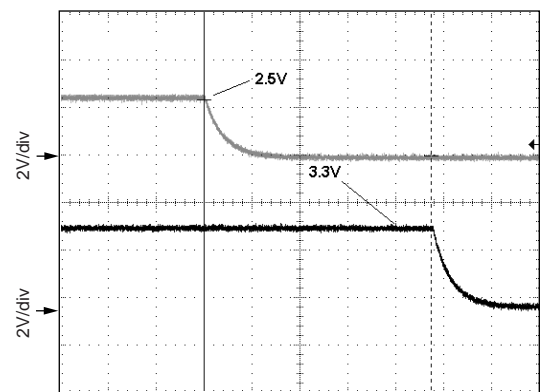
Power Sequencing Circuit

Turn On Characteristics



TIME (1ms/div.)

Turn Off Characteristics



TIME (2ms/div.)

Bill of Materials

Item	Part Number	Manufacturer	Description	Qty.
C1, C2, C3	06036D105MAT2	AVX ⁽¹⁾	1 μ F Capacitor	3
C4	0201ZD104MAT2	AVX ⁽¹⁾	0.1 μ F Capacitor, size 0201	1
C5	0201ZD103MAT2	AVX ⁽¹⁾	0.01 μ F Capacitor, size 0201	1
D1	BAT54S	Diodes, Inc. ⁽²⁾	Dual Diode SOT-23	1
R1	CRCW04026103F	Vishay Dale ⁽³⁾	610k Ω Resistor	1
R2	CRCW04024702F	Vishay Dale ⁽³⁾	47k Ω Resistor	1
R3	CRCW04029102F	Vishay Dale ⁽³⁾	91k Ω Resistor	1
U1	MIC5254-SJBMM	Micrel, Inc. ⁽⁴⁾	Dual LDO	1

1. AVX: www.avx.com

2. Diodes, Inc.: www.diodes.com

3. Vishay Dale: www.vishay.com

4. **Micrel, Inc.:** www.micrel.com

MICREL, INC. 1849 FORTUNE DRIVE SAN JOSE, CA 95131 USA

TEL + 1 (408) 944-0800 FAX + 1 (408) 944-0970 WEB <http://www.micrel.com>

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