

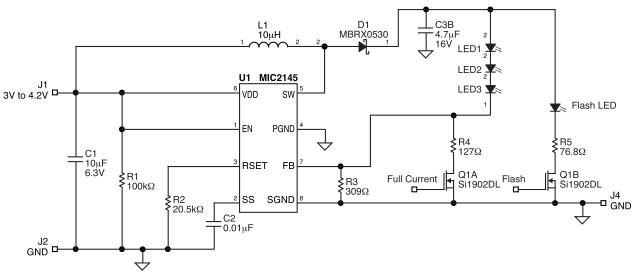
Application Hint 51

White LED Backlight with Flash

By Martin Galinski

Circuit Performance

- 3.5mA default output LED current
- "Full current" selection increases LED current to 12mA V_{IN}
- "Flash" input enables 150mA flash LED



White LED Backlight with Flash

Bill of Materials

Item	Part Number	Manufacturer	Description	Qty.
C1	GRM42-6X5R106K6.3	Murata ⁽¹⁾	4x 10μF /6.3V	1
C2	GRM40X7R103K50	Murata ⁽¹⁾	0.01µF/ 50V	1
C3	C3216JB1C475K	TDK ⁽²⁾	4.7μF / 16V	1
D1	MBRX0530	Micro Commercial ⁽³⁾	30V, 0.5A, Schottky Diode	1
D1	MBR0530T1	ON Semi. Corp. ⁽⁴⁾	30V, 0.5A, Schottky Diode	1
L1	LDR5610T-100MR9	TDK ⁽²⁾	10µH	1
LED1-LED3	TLMW3101	Vishay Telefunken ⁽⁵⁾	High Intensity SMD LED	8
R1	CRCW06031003FRT1	Vishay Dale ⁽⁶⁾	100kΩ, 1%, 1/10W, size 0603	1
R2	CRCW06032052FRT1	Vishay Dale ⁽⁶⁾	20.5kΩ, 1%, 1/10W, size 0603	1
R3	CRCW06033090FRT1	Vishay Dale ⁽⁶⁾	309Ω, 1%, 1/10W, size 0603	1
R4	CRCW06031270FRT1	Vishay Dale ⁽⁶⁾	127Ω, 1%, 1/10W, size 0603	1
R5	CRCW060376R8FRT1	Vishay Dale ⁽⁶⁾	76.8Ω, 1%, 1/10W, size 0603	1
U1	MIC2145BMM	Micrel, Inc. ⁽⁷⁾	MIC2145BMM	1

1. Murata: www.murata.com

2. TDK: www.tdk.com

- 3. Micro Commercial: www.mccsemi.com
- 4. ON Semiconductor Corp.: www.onsemi.com
- 5. Vishay Telefunken: www.vishay.com
- 6. Vishay Dale: www.vishay.com
- 7. Micrel, Inc.: www.micrel.com

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