

Circuit Performance

- Efficiency >75% at 150mA
- Output ripple voltage <100mV
- Low-profile solution

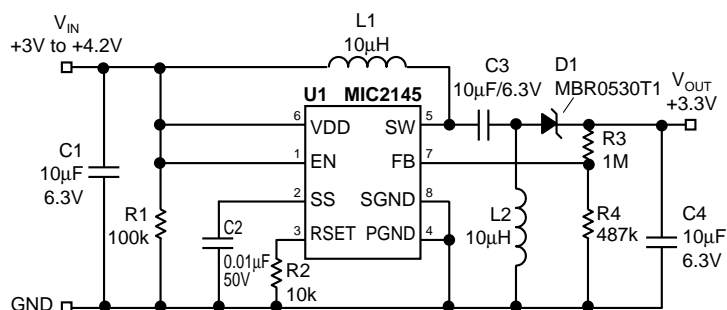


Figure 1. SEPIC Circuit

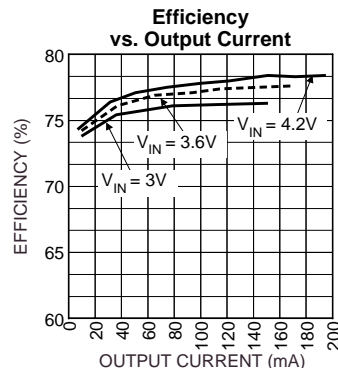


Figure 2. Typical 3.3V Output Efficiency

Bill of Materials

Item	Part Number	Manufacturer	Description	Qty
U1	MIC2145BMM	Micrel ¹	High Efficiency Boost Converter	1
C1, C3, C4	GRM42-6X5R106K6.3	Murata ²	10µF, 6.3V Ceramic	3
C2	GRM40X7R103K50	Murata ²	0.01µF, 50V Ceramic	1
D1	MBR0530T1	On Semiconductor ³	0.5A, 30V Schottky Rectifier	1
	MBRX0530	Micro Commercial Corp. ⁴	0.5A, 30V Schottky Rectifier	
L1, L2	CR43-100	Sumida ⁵	10µH Inductor	2
R1	CRCW06031003FRT1	Vishay-Dale ⁶	100k, 1% resistor, size 0603	1
R2	CRCW06031002FRT1	Vishay-Dale ⁶	10k, 1% resistor, size 0603	1
R3	CRCW06031004FRT1	Vishay-Dale ⁶	1M, 1% resistor, size 0603	1
R4	CRCW06034873FRT1	Vishay-Dale ⁶	487k, 1% resistor, size 0603	1

Note 1. Micrel Semiconductor tel: 408-944-0800

Note 2. Murata tel: 949-916-4000

Note 3. On Semiconductor tel: 800-344-3860

Note 4. Micro Commercial Corp. tel: 800-346-3371

Note 5. Sumida tel: 510-668-0660

Note 6. Vishay-Dale tel: 402-644-4218

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