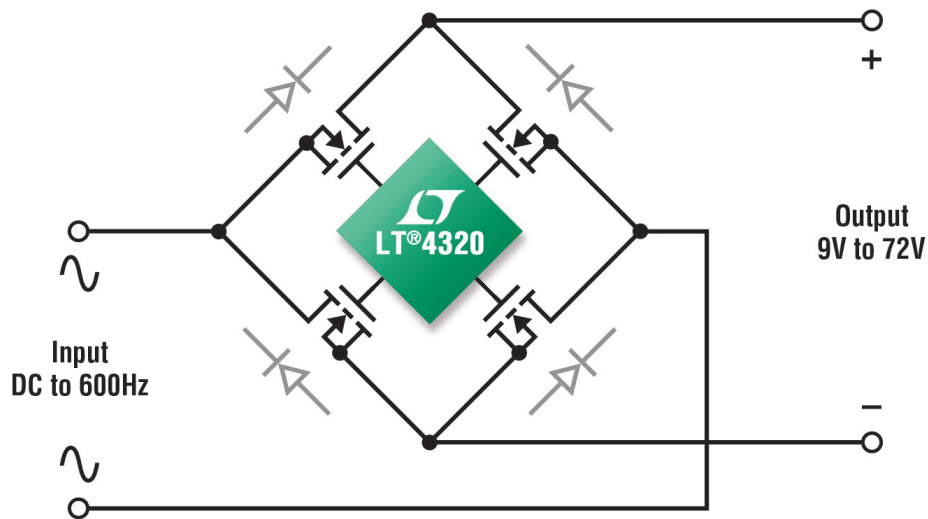
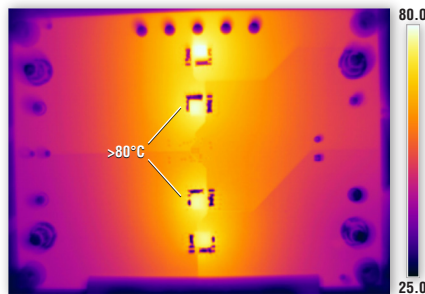


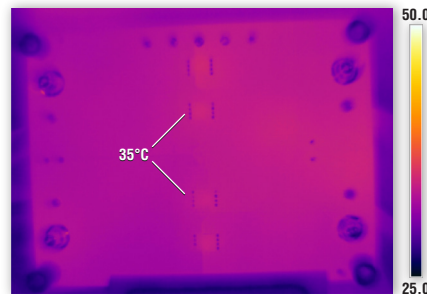
Ideal Diode Bridge



Thermograph with 24V_{IN} AC, 9.75A DC Load on Same PCB



SBM1040 (×4) DIODE BRIDGE



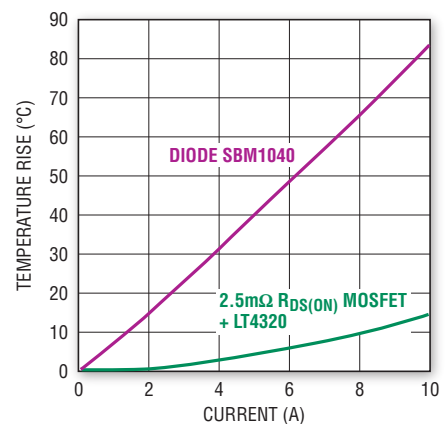
LT4320+2.5mΩ R_{DS(ON)} (×4) MOSFET BRIDGE

Active Diode Bridge Controller Minimizes Voltage Drop and Heat Sinking Requirements

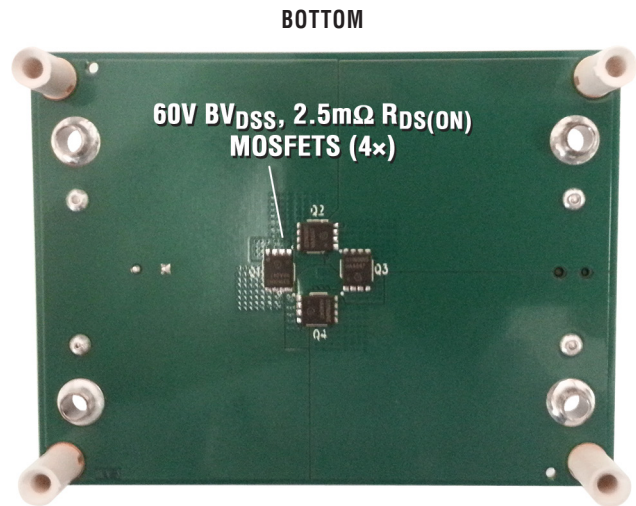
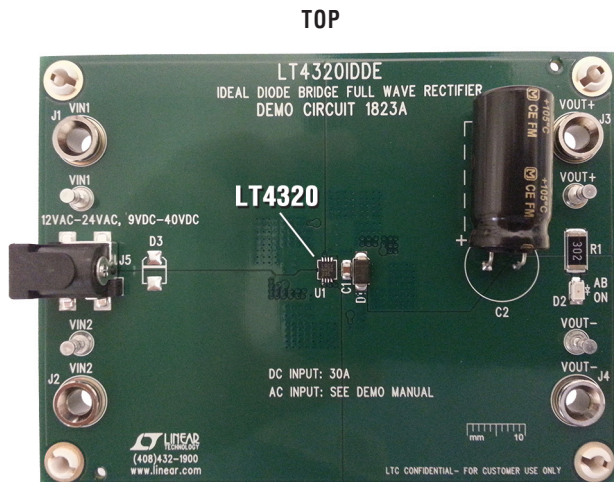
Features

- Low Loss Replacement for Diode Bridge Rectifier
- Maximizes Power Efficiency and Available Voltage
- Minimizes Heat to Ease Thermal Design
- 9V to 72V, DC to 600Hz Operation
- Controls N-Channel MOSFETs
- -40°C to 85°C Guaranteed Temperature Range
- 8-Pin 3mm × 3mm DFN and 12-Lead MSOP Packages

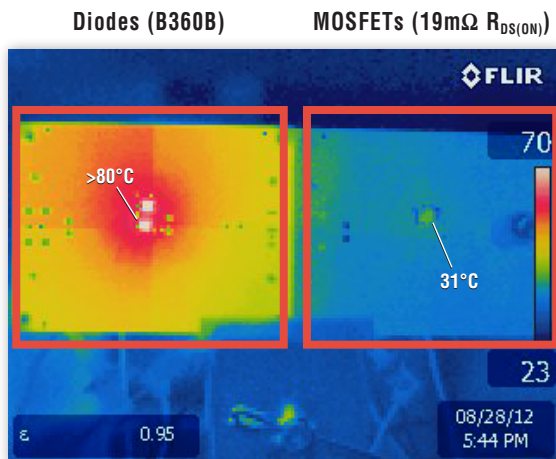
Temperature Rise vs Load Current



LT4320 Ideal Diode Bridge Controller



DC1823A Demonstration Circuit: 1.2kW Ideal Diode Bridge Rectifier



Condition: 13V DC_{IN} , 3A Load on Same PCB

LT4320 Ideal Diode Bridge				Diode Bridge
MOSFET	Operating Voltage	Load Current	Power Loss	Power Loss
BSZ110N06NS3	55V DC	3.5A	0.22W	4.2W
	24V AC	1.5A	0.13W	1.9W
BSC031N06NS3	55V DC	30A	4.5W	36W
	24V AC	10A	1.6W	12W
PSMN040-100MSE	72V DC	2A	0.24W	2.4W



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