

GENERAL DESCRIPTION

OB6566 is an active transition-mode (TM) power factor correction (PFC) controller for AC-DC switching mode power supply applications.

OB6566 features a demagnetization detector to ensure TM operation, a current sensing comparator with built-in leading-edge blanking, and a totem pole output ideally suited for driving a power MOSFET.

OB6566 offers great protection coverage including system over-voltage protection (OVP) to eliminate runaway output voltage due to load removal, VCC under voltage lockout (UVLO), cycle-by-cycle current limiting, Inductor short protection (ISP), and gate drive output clamping for external power MOSFET protection.

With added system open loop protection feature, OB6566 shuts down system when the feedback loop is open.

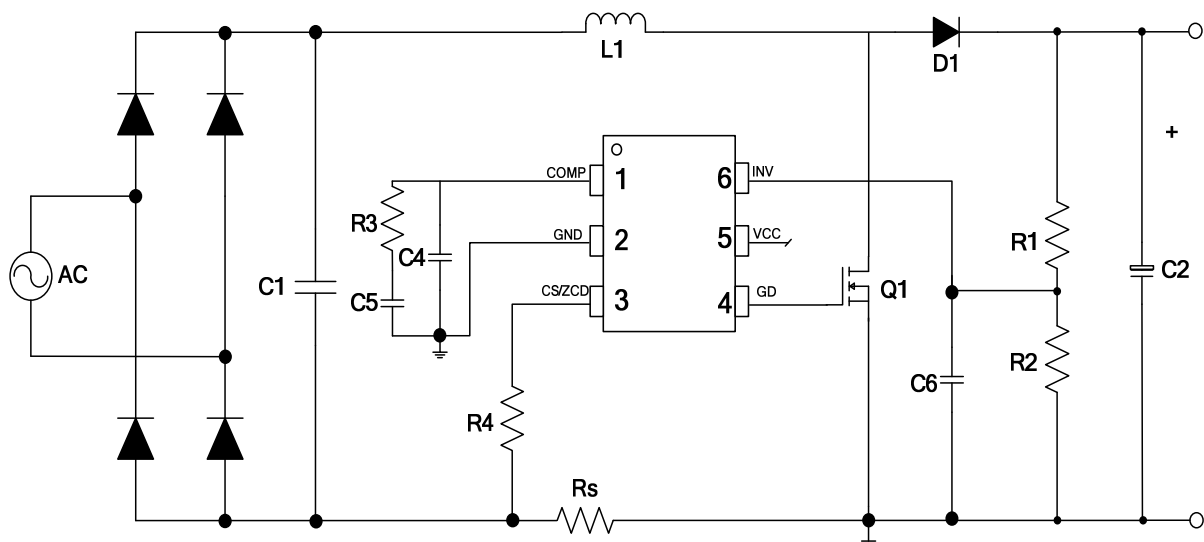
FEATURES

- Transition Mode (TM) Operation
- Works without Transformer ZCD Winding (simple inductor)
- Low Start-up Current and Operating Current
- Cycle-by-Cycle Current Limiting
- Adjustable Demagnetization detection delay
- Under Voltage Lockout with Hysteresis
- Very Precise Adjustable Output Overvoltage Protection
- Dynamic OVP & Static OVP function
- Totem Pole Output with High State Clamping
- System Open Loop Protection
- Inductor short protection
- Audio Noise Free
- 9V to 26V wide range of VCC voltage

APPLICATIONS

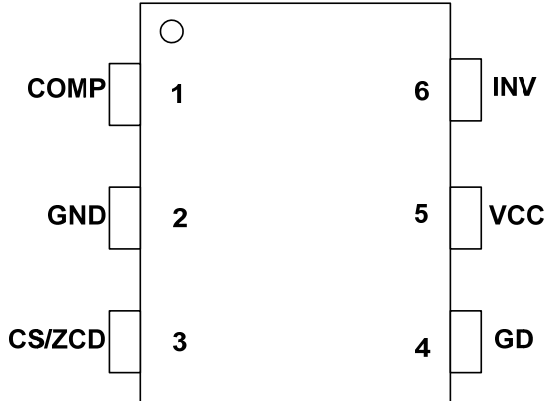
- AC-DC SMPS
- Flat TV
- PC Power Supplies

TYPICAL APPLICATION



GENERAL INFORMATION

Terminal Assignment
 In SOT23-6 Package.



Ordering Information

Part Number	Description
OB6566MP	SOT23-6, Halogen-free, T&R

Package Dissipation Rating

Package	R θ JA (°C/W)
SOT23-6	200

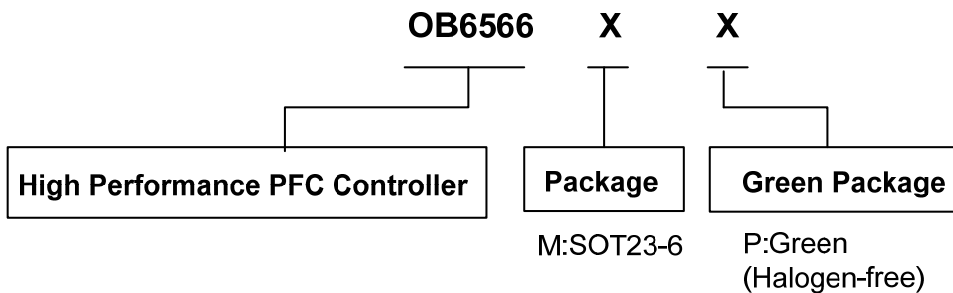
Absolute Maximum Ratings

Symbol	Parameter	Value
VCC	DC Supply voltage	30 V
INV/COMP/CS	Analog inputs & outputs	-0.7 to 7V
T _j	Min/Max Operating Junction Temperature	-40 to 150 °C
T _A	Operating Ambient Temperature	-20 to 85 °C
T _{stg}	Min/Max Storage Temperature	-55 to 150 °C
Lead Temperature	(Soldering, 10secs)	260°C

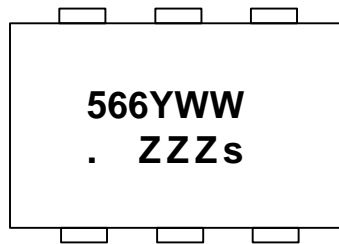
Note: Stresses beyond those listed under “absolute maximum ratings” may cause permanent damage to the device. These are stress ratings only, functional operation of the device at these or any other conditions beyond those indicated under “recommended operating conditions” is not implied. Exposure to absolute maximum-rated conditions for extended periods may affect device reliability.

Recommended Operating Range

Symbol	Parameter	Min/Max
VDD	VDD Supply Voltage	9V to 28V



Marking Information



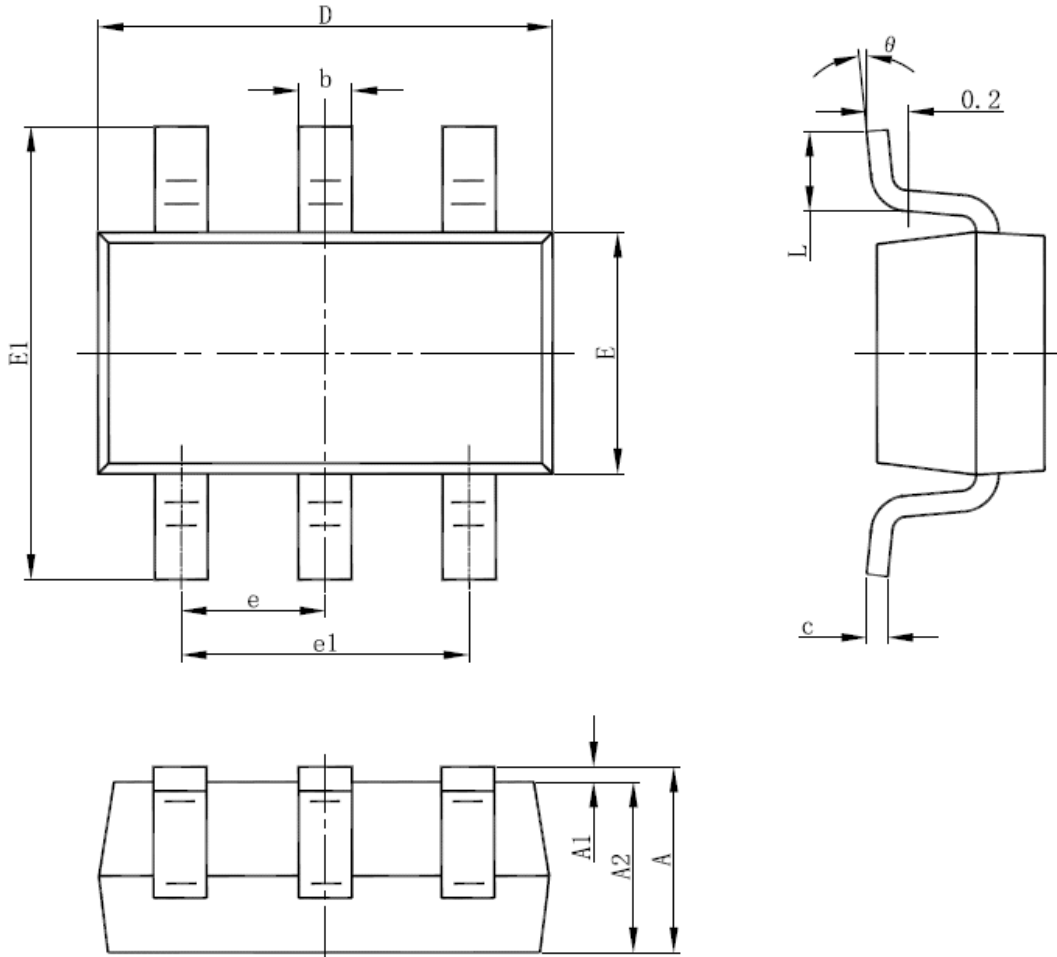
Y:Year Code
 WW:Week Code(01-52)
 s: Internal code
 ZZZ: Lot code

TERMINAL DESCRIPTIONS

Pin Num	Pin Name	I/O	Description
1	COMP	O	Output of Error Amplifier. A feedback compensation network is placed between COMP pin and GND.
2	GND	P	Ground Pin.
3	CS/ZCD	I	Current Sense Input Pin.
4	GD	O	Gate driver output. Drive Power MOSFET.
5	VCC	P	DC Supply Voltage.
6	INV	I	Inverting Input of Error Amplifier. Connect to resistor divider from system output. Connect a cap from INV to ground to set the demagnetization detection delay.

PACKAGE MECHANICAL DATA

SOT-23-6L PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.000	1.450	0.039	0.057
A1	0.000	0.150	0.000	0.006
A2	0.900	1.300	0.035	0.051
b	0.300	0.500	0.012	0.020
c	0.080	0.220	0.003	0.009
D	2.800	3.020	0.110	0.119
E	1.500	1.726	0.059	0.068
E1	2.600	3.000	0.102	0.118
e	0.950 (BSC)		0.037 (BSC)	
e1	1.800	2.000	0.071	0.079
L	0.300	0.600	0.012	0.024
θ	0°	8°	0°	8°

IMPORTANT NOTICE

RIGHT TO MAKE CHANGES

On-Bright Electronics Corp. reserves the right to make corrections, modifications, enhancements, improvements and other changes to its products and services at any time and to discontinue any product or service without notice. Customers should obtain the latest relevant information before placing orders and should verify that such information is current and complete.

WARRANTY INFORMATION

On-Bright Electronics Corp. warrants performance of its hardware products to the specifications applicable at the time of sale in accordance with its standard warranty. Testing and other quality control techniques are used to the extent it deems necessary to support this warranty. Except where mandated by government requirements, testing of all parameters of each product is not necessarily performed.

On-Bright Electronics Corp. assumes no liability for application assistance or customer product design. Customers are responsible for their products and applications using On-Bright's components, data sheet and application notes. To minimize the risks associated with customer products and applications, customers should provide adequate design and operating safeguards.

LIFE SUPPORT

On-Bright Electronics Corp.'s products are not designed to be used as components in devices intended to support or sustain human life. On-bright Electronics Corp. will not be held liable for any damages or claims resulting from the use of its products in medical applications.

MILITARY

On-Bright Electronics Corp.'s products are not designed for use in military applications. On-Bright Electronics Corp. will not be held liable for any damages or claims resulting from the use of its products in military applications.