SP988
Simple ORing Controller

DESCRIPTION
The SP988 is an ORing FET Controller for use in a power supply and/or power system. When it is operated in conjunction with an MOSFET, it functions as an ideal diode when connected with a power source. This ORing controller allows MOSFET to replace diode rectifier in power distribution system thus reducing both power loss and voltage drops. The FET may be electrically connected between an input and an output.

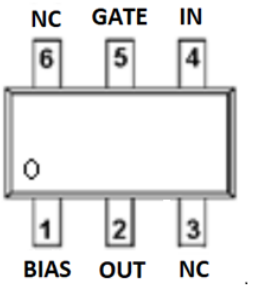
With low external component counts, SP988 is a low cost solution for the applications.

SP988 is available in SOT-23-6L package.

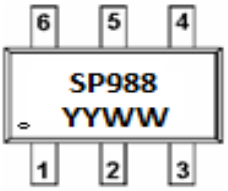
APPLICATIONS
- Battery Charger
- Open-Frame Switching Power Supply
- LED Power Supply
- Active ORing of Redundant (N+1) Power Supplies

FEATURES
- Low saturation voltage
- 500mW power dissipation
- 2A Peak Gate Turnoff Current
- Ideally suited for space / weight critical applications
- SOT-23-6L Package

PIN CONFIGURATION
SOT-23-6L

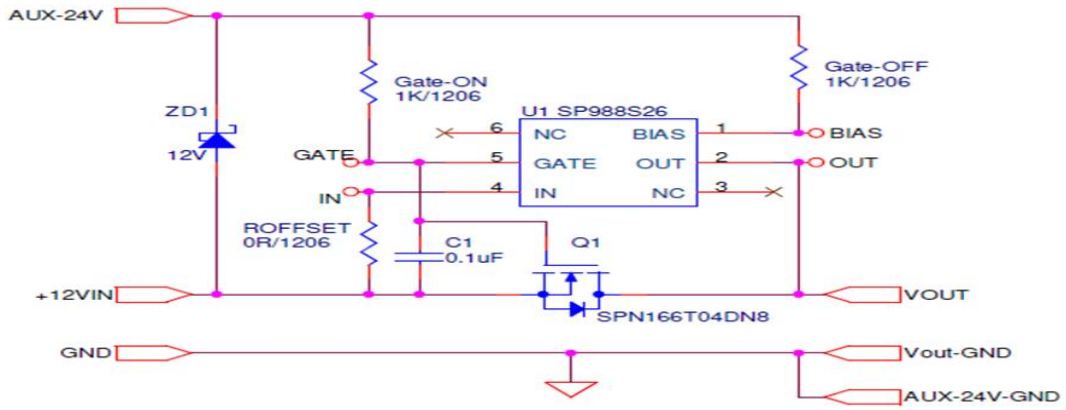


PART MARKING
SOT-23-6L



Y : Year Code
W : Week Code

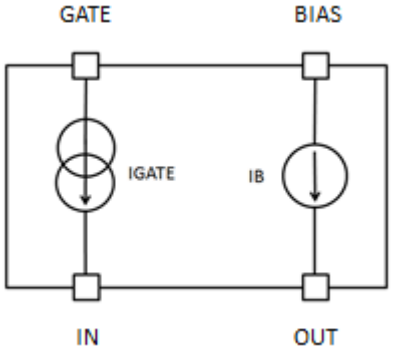
TYPICAL APPLCATION CIRCUIT



PIN DESCRIPTION

Pin	Symbol	Description
1	BIAS	Bias
2	OUT	Voltage sense connection to the external MOSFET Drain pin.
3	NC	Unconnected pin
4	IN	Voltage sense connection to the external MOSFET Source pin.
5	GATE	Gate driver output to drive the external MOSFET.
6	NC	Unconnected pin

BLOCK DIAGRAM



ORDERING INFORMATION

Part Number	Package	Part Marking
SP988S26RGB	SOT-23-6L	988YW

※ SP988S26RGB : Tape Reel ; Pb – Free ; Halogen-Free

ABSOULTE MAXIMUM RATINGS (T_A=25℃, unless otherwise specified.)

The following ratings designate persistent limits beyond which damage to the device may occur.

Symbol	Parameter		Value	Unit
P_D	Power Dissipation @ T_A=85℃ (*)		0.3	W
ESD	Human Body Model		2	KV
	Machine Model		200	V
T_J	Operating Junction Temperature Range		-40 ~ 150	℃
T_{STG}	Storage Temperature Range		-40 ~ 150	℃
$R_{\Theta JC}$	Thermal Resistance Junction – Case (*)	SOT-23-6L	210	℃/W

(*) The power dissipation and thermal resistance are evaluated under copper board mounted with free air conditions.

ELECTRICAL CHARACTERISTICS

(T_A=25℃, unless otherwise specified.)

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Unit
Vset	Vin-Vout	I_{GATE}=I_{BIAS} =1mA		10		mV
$V_{IN-BIAS}$		Leakage Current	60			V
$V_{GATE-IN}$		Leakage Current	60			V

SYNC Power Corporation
7F-2, No.3-1, Park Street
NanKang District (NKSP), Taipei, Taiwan, 115, R.O.C
Phone: 886-2-2655-8178
Fax: 886-2-2655-8468
http://www.syncpower.com