IC 99W068A

High Voltage high side switch BA4910FP

Description

Dimension (Units:mm)

The BA4910FP is a high voltage high side switch which has an output that can be turned ON/OFF by a CTL pin. Circuit current of $1\mu A$ (Typ.) at standby is perfect for power saving. Applications are various including car stereos and printers.



- 1) Maximum voltage of 50V PNP
- 2) Due to built-in output current control, IC is protected from destruction caused by output short circuits
- 3) Built-in over current detection delay circuit
- 4) Surge resistant due to over voltage protection circuit being built-in.
- 5) Built-in temperature protection circuit to protect IC from thermal destruction

Applications

Car Stereos

Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Applied voltage 1	V _{cc}	50	V
Applied voltage 2	CTL	10	V
Power dissipation	Pd	1000 *1	mW
Operating temperature range	Topr	- 40 ~ +85	°C
Storage temperature range	Tstg	- 55 ~ +150	°C
Peak supply voltage	V _{CC} PEAK	60 ^{*2}	V

*1 Derating: 8.0mW/°C for operation above Ta=25°C.

*2 tr \geq 1msec. Applied voltage: within 200msec.





Recommended Operating Conditions (Ta=25°C)

Parameter	Symbol	Min.	Тур.	Max.	Unit
Power supply voltage	V _{IN}	8.5	14.4	16	V

Electrical Characteristics

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Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions	
<input/>							
Stand by current	lst	-	-	10	μA	CTL pin=0V	
Operating current	lcc	3.3	5.5	7.7	mA	CTL pin=5V, lo=0mA	
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Dropout voltage	∆Vo1	-	0.5	1.0	V	lo=400mA	
Load regulation	∆Vo2	-	450	900	mV	lo=0~400mA	
Output current	lo	500	-	800	mA	Vo VIN- △Vo1MAX *1	
CTL pin>							
Standby level	Vthsw1	-	-	1.5	V		
Active level	Vthsw2	3.8	-	v	V		
Input high current	linsw	16	27	38	μA	Vth=3.5V	
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Threshold voltage	V∆th	0.8	0.85	0.9	V	\triangle (Vth-VCP)	
Capacitor charging current *2	lcp	1.2	2.0	2.8	μA		

*1 \triangle Vo1_{MAX}=Maximum of minimum I/O differential voltage *2 When CP=0.47µF, delay time =200msec.(TYP) \bigcirc This product is not designed with anti-radiation capability. \bigcirc Output current can be used within min. of Io.

Application circuit



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