

TOSHIBA BIPOLAR LINEAR INTEGRATED CIRCUIT SILICON MONOLITHIC

TA8523F

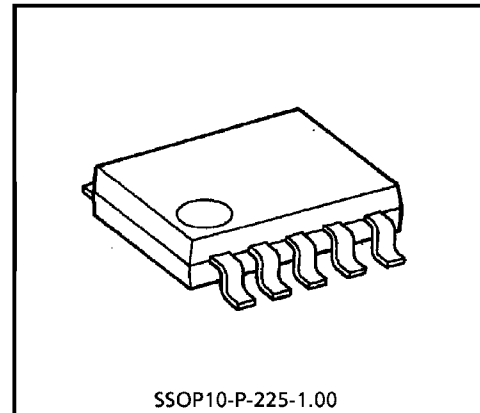
PB BATTERY CHARGER IC

TA8523F is applicable to two cells for mutual charge and discharge. This IC includes reference voltage circuit, hysteresis comparator, and supply current circuit. Battery is charged by the current is made from external Resistance, Transistor, and this IC has function to be change to 5mA at charging voltage 4.90V (Typ.).

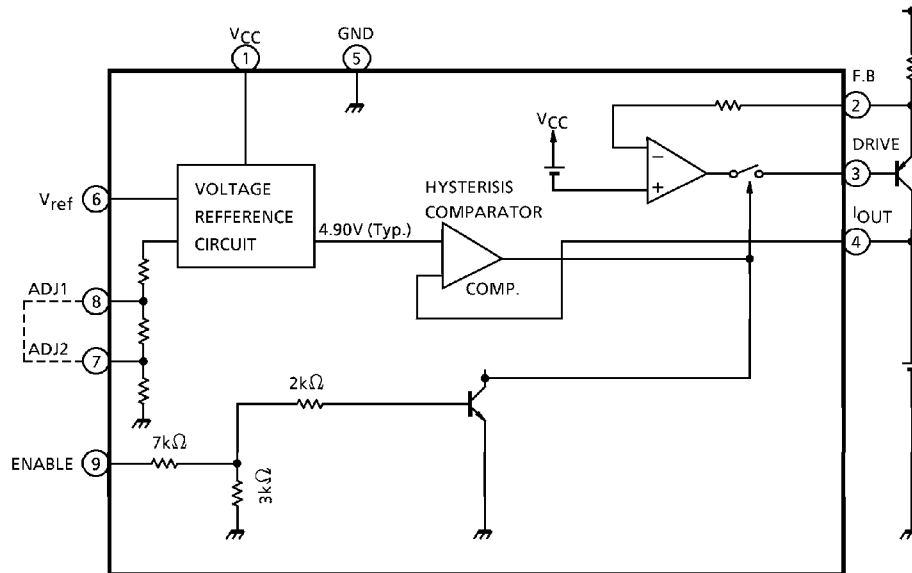
FEATURES

- Reference voltage can be adjusted by ADJ 1, ADJ 2.
- Charging Current can be set by external Tr, R.
- Built-in enable function.

BLOCK DIAGRAM



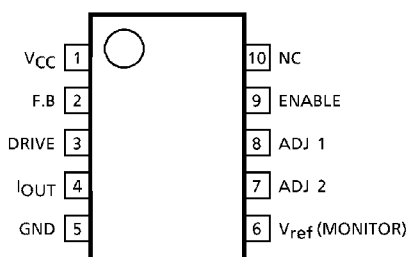
Weight : 0.1g (Typ.)



961001EBA2

- TOSHIBA is continually working to improve the quality and the reliability of its products. Nevertheless, semiconductor devices in general can malfunction or fail due to their inherent electrical sensitivity and vulnerability to physical stress. It is the responsibility of the buyer, when utilizing TOSHIBA products, to observe standards of safety, and to avoid situations in which a malfunction or failure of a TOSHIBA product could cause loss of human life, bodily injury or damage to property. In developing your designs, please ensure that TOSHIBA products are used within specified operating ranges as set forth in the most recent products specifications. Also, please keep in mind the precautions and conditions set forth in the TOSHIBA Semiconductor Reliability Handbook.
- The products described in this document are subject to foreign exchange and foreign trade control laws.
- The information contained herein is presented only as a guide for the applications of our products. No responsibility is assumed by TOSHIBA CORPORATION for any infringements of intellectual property or other rights of the third parties which may result from its use. No license is granted by implication or otherwise under any intellectual property or other rights of TOSHIBA CORPORATION or others.
- The information contained herein is subject to change without notice.

PIN CONNECTION MFP-10



MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	V _{CC}	14	V
Enable Terminal Voltage	V _{EN}	-0.3~V _{CC}	V
F.B, Drive Terminal Voltage	V _{F.B} , DRIVE	-0.3~V _{CC} + 0.3	V
ADJ 1, ADJ 2 Terminal Voltage	V _{ADJ}	-0.3~V _{CC} + 0.3	V
Tr. Drive Current	I _{dr}	~10	mA
Power Dissipation	P _D	0.4	W
Operating Temperature	T _{opr}	0~60	°C
Storage Temperature	T _{stg}	-55~150	°C

RECOMMENDED OPERATING CONDITION

CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	V _{CC}	7.5~12	V
Enable Terminal Voltage	V _{EN}	2.5~V _{CC}	V
Tr. Drive Current	I _{dr}	~5	mA

ELECTRICAL CHARACTERISTICS (Unless otherwise specified, V_{CC} = 10V, Ta = 25°C)

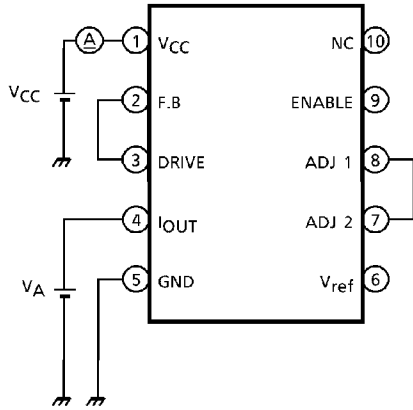
CHARACTERISTIC	SYMBOL	TEST CIR-CUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Supply Current	I _{CC}	1	Enable ; Open	—	5	16	mA
Reference Voltage	V _{ref}	2	T _j = 25°C (Note)	4.80	4.90	5.00	V
Output Voltage (F. B Terminal)	V _{F.B}	3	V _{CC} - F.B	1.1	1.25	1.4	V
Leak Current	I _{leak}	4	V _{CC} →OFF	—	—	20	μA
Hysterisis Voltage	V _{HYS}	—	—	—	200	—	mV

(Note) Connection of ADJ Terminal is for the most neary value of V_{ref} = 4.90V, that is

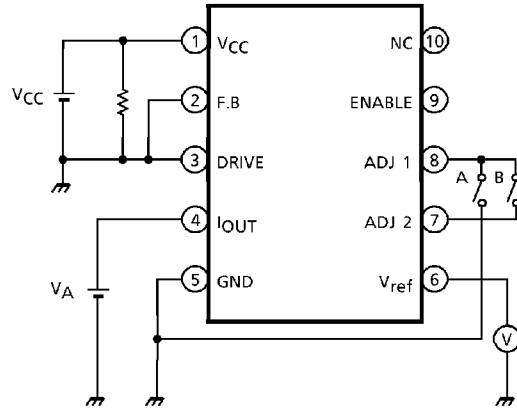
one out of { 8pin →GND
7pin →GND
7, 8pin→OPEN

TEST CIRCUIT

(1) Supply Current (I_{CC})

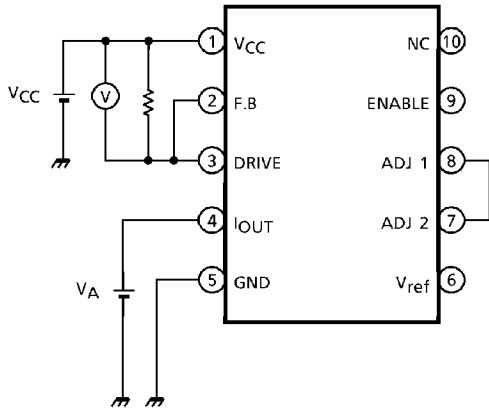


(2) Reference Voltage (V_{ref})

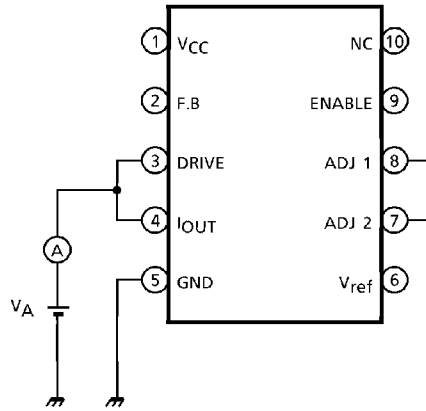


- ① SWA→ON SWB→OFF
- ② SWA→OFF SWB→ON
- ③ SWA→OFF SWB→OFF

(3) Output Voltage (F.B Terminal) ($V_{F.B}$)

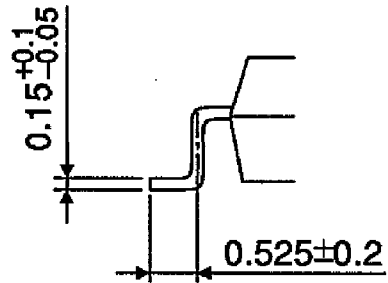
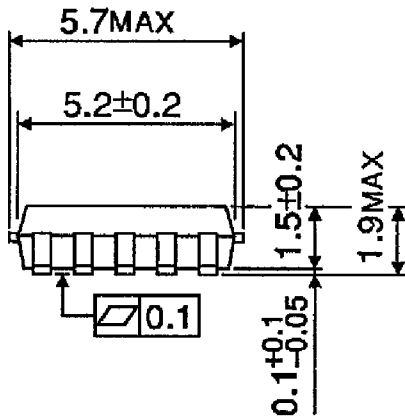
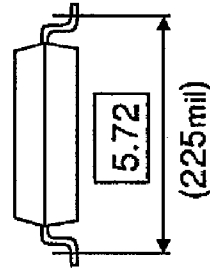
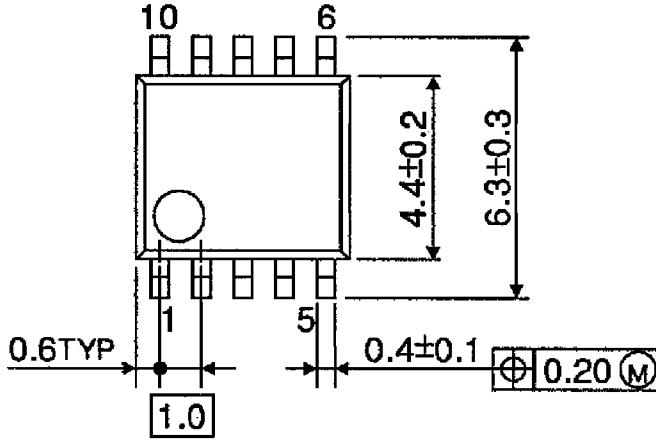


(4) Leak Current (I_{leak})



OUTLINE DRAWING
SSOP10-P-225-1.00

Unit : mm



Weight : 0.1g (Typ.)

X