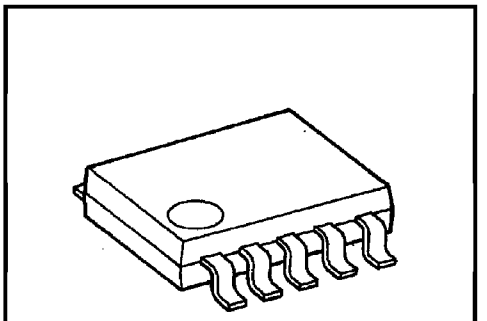
TOSHIBA BIPOLAR LINEAR INTEGRATED CIRCUIT SILICON MONOLITHIC

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.).



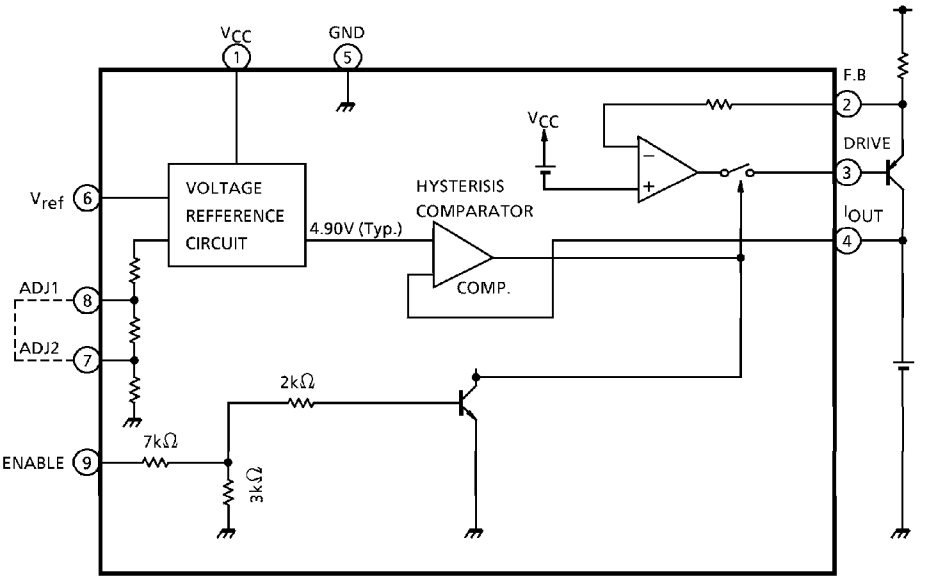
SSOP10-P-225-1.00

Weight : 0.1g (Typ.)

FEATURES

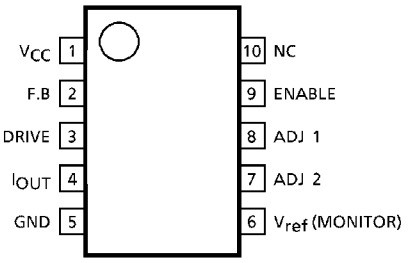
- Reference voltage can be adjusted by ADJ 1, ADJ 2.
- Charging Current can be set by external Tr, R.
- Built-in enable function.

BLOCK DIAGRAM



961001EBA2

PIN CONNECTION MFP-10



MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	V_{CC}	14	V
Enable Terminal Voltage	V_{EN}	$-0.3 \sim V_{CC}$	V
F.B, Drive Terminal Voltage	$V_{FB,\ DRIVE}$	$-0.3 \sim V_{CC}+0.3$	V
ADJ 1, ADJ 2 Terminal Voltage	V_{ADJ}	$-0.3 \sim V_{CC}+0.3$	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}	$2.5 \sim V_{CC}$	V
Tr. Drive Current	I_{dr}	~5	mA

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

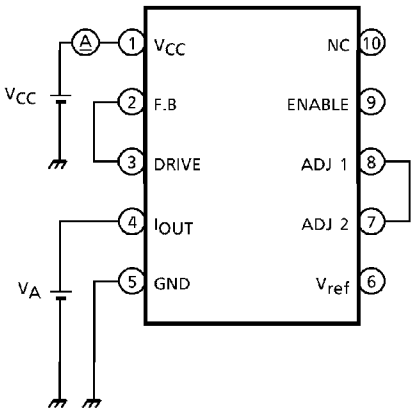
CHARACTERISTIC	SYMBOL	TEST CIR-CUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Supply Current	I_{CC}	1	Enable ; Open	—	5	16	mA
Reference Voltage	V_{ref}	2	T_j = 25°C (Note)	4.80	4.90	5.00	V
Output Voltage (F. B Terminal)	$V_{F.B}$	3	V_{CC} − F.B	1.1	1.25	1.4	V
Leak Current	I_{leak}	4	V_{CC}→OFF	—	—	20	μA
Hysterisis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

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

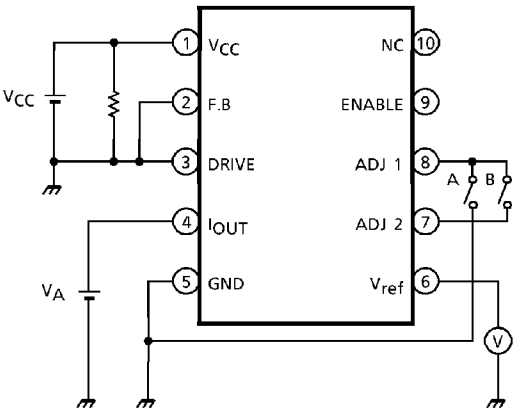
one out of { 8pin →GND; 7pin →GND; 7, 8pin →OPEN }

TEST CIRCUIT

(1) Supply Current (I_{CC})

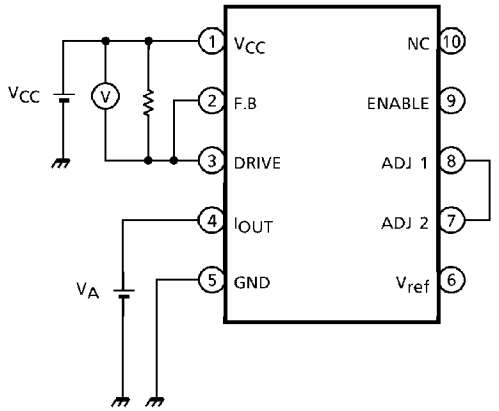


(2) Reference Voltage (V_{ref})

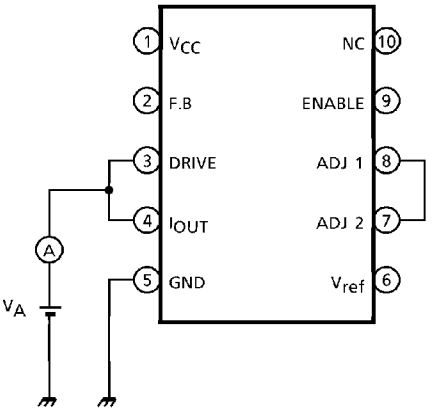


① SWA→ON SWB→OFF
② SWA→OFF SWB→ON
③ SWA→OFF SWB→OFF

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

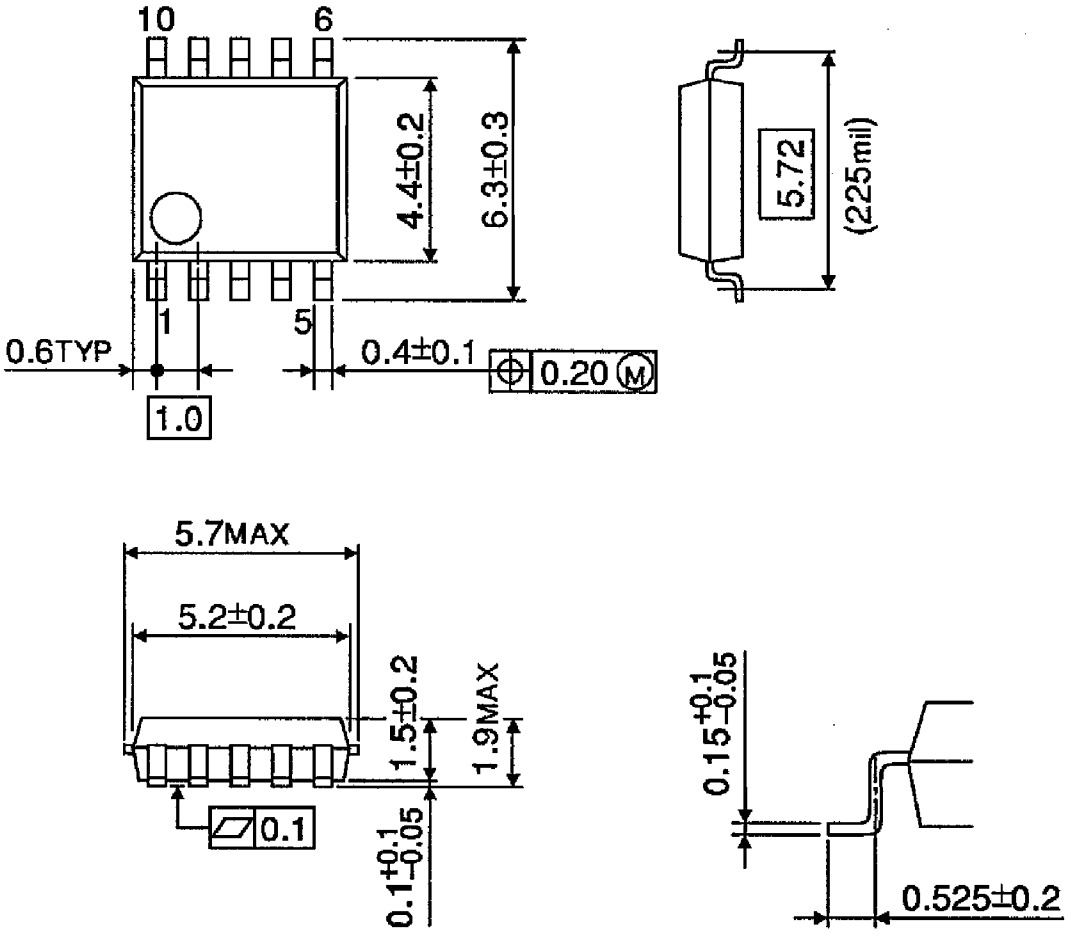


(4) Leak Current (I_{leak})



OUTLINE DRAWING

SSOP10-P-225-1.00 Unit : mm



Weight : 0.1g (Typ.)