TOSHIBA TA8302F

TENTATIVE

TOSHIBA BIPOLAR LINEAR INTEGRATED CIRCUIT SILICON MONOLITHIC

TA8302F

MOTOR DRIVER FOR CAMERA

TA8302F is Multi Chip IC incorporates 6 low saturation discrete transistors which equipped bias resistor and Free-Wheeling diode.

This IC is suitable for a camera use motor drive applications.

FEATURES

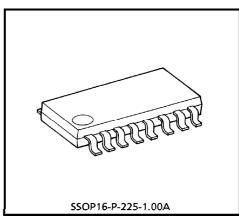
• Suitable for high efficiency motor drive circuit.

• Built-in Bias Resistor : $R = 10k\Omega$

• Built-in Free-Wheeling Diode : Only Lower side

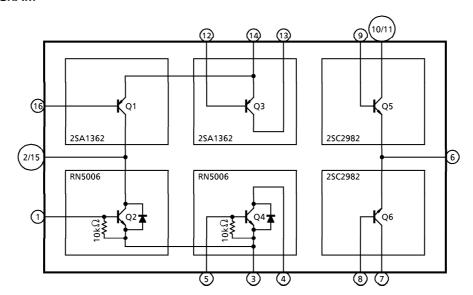
Small package sealed : SSOP16

Low saturation voltage



Weight: 0.14g (Typ.)

BLOCK DIAGRAM



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FUNCTION DESCRIPTION ON EACH TERMINAL

PIN No.	FUNCTION				
1	Tr. Q2	Input Terminal			
2	Tr. Q1, Q2	Output Terminal			
3	Tr. Q2, Q4	GND			
4	Tr. Q4	Output Terminal			
5	Tr. Q4	Input Terminal			
6	Tr. Q5, Q6	GND			
7	Tr. Q6	Output Terminal			
8	Tr. Q6	Input Terminal			
9	Tr. Q5	Input Terminal			
10	Tr. Q5	Output Terminal			
11	Tr. Q5	Output Terminal			
12	Tr. Q3	Input Terminal			
13	Tr. Q3	Output Terminal			
14	Tr. Q1, Q3	Supply Voltage			
15	Tr. Q1, Q2	Output Terminal			
16	Tr. Q1	Input Terminal			

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	V _{CC}	7.0	V
	V _{CBO}	7.0	V
Breakdown Voltage	VCEO	7.0	V
	V _{EBO}	5.0	V
Output Current	IOUT	0.8	Α
Base Current	Ι _Β	0.4	Α
Power Dissipation	PD	490	
Junction Temperature	Tj	150	°C
Operating Temperature	T _{opr}	- 20~60	°C
Storage Temperature	T _{stg}	- 55∼150	°C

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ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	MEASURING Tr	TEST CIR- CUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Current Gain	h _{FE 1}	2SA1362	_	V _{CE} = - 1V, I _C = - 100mA	120	_	700	
	h _{FE 2}	2SC2982	_	$V_{CE} = -1V, I_{C} = 500 mA$	140	_	600	
	hFE 3	RN5006	_	V _{CE} = - 1V, I _C = 500mA	160	_	600	
Saturation Voltage	V _{CE} 1	2SA1362	_	$I_C = -600 \text{mA}, I_B = -10 \text{mA}$	- 0.5	_	_	٧
	V _{CE 2}	2SC2982	_	I _C = 600mA, I _B = 20mA	_	_	0.5	٧
	V _{CE 3}	RN5006	_	I _C = 600mA, I _B = 20mA	_	_	0.5	٧
Leakage Current	lOFF		_	V _{CC} = 7V		_	1.0	μ A
Base-Emitter Forward Voltage	V _{BE 1}	2SA1362	_	$V_{CE} = -1V$, $I_{C} = -600$ mA	- 1.0	_	- 0.65	٧
	V _{BE 2}	2SC2982	_	$V_{CE} = 1V, I_{C} = 600 mA$	0.5	_	0.9	٧
Diode Forward Voltage	V _F	RN5006	_	I _F = 300mA	_	0.89	1.2	V
Transition Frequency	f _{T1}	2SA1362	_	$V_{CE} = -5V, I_{C} = -10mA$	_	_	120	MHz
	f _{T2}	2SC2982	_	$V_{CE} = 1V, I_{C} = 500 mA$	_	_	150	MHz
	f _{T3}	RN5006	_	$V_{CE} = 1V, I_{C} = 500 mA$	_	_	140	MHz

TOSHIBA TA8302F

OUTLINE DRAWING SSOP16-P-225-1.00A Unit:mm 0.6TYP 8.7MAX 8.2±0.2 0.525±0.2

Weight: 0.14g (Typ.)