TOSHIBA

2020-05-07 Rev.2.0

RD Number: RD072

RD Title: TB67S213FTAG Evaluation circuit BOM

Item No.	Designator	Quantity	Value	Part Number	Manufacturer	Description	Package	Not Mount
1	IC1	1	TB67S213FTAG	TB67S213FTAG	TOSHIBA	Motor driver IC	QFN36	
2	C_VCC	1	0.1μF 25V	—	—	Chip capacitor	3.2mm×1.6mm	
3	C_VM2	1	0.1μF 50V	—	—	Chip capacitor	3.2mm×1.6mm	
4	C_VRFA	1	0.1μF 25V	—	—	Chip capacitor	3.2mm×1.6mm	
5	C_VRFB	1	0.1μF 25V	—	—	Chip capacitor	3.2mm×1.6mm	
6	C_OAP	0	0.1μF 25V	—	—	Chip capacitor	3.2mm×1.6mm	✓
7	C_OAM	0	0.1μF 25V	—	—	Chip capacitor	3.2mm×1.6mm	✓
8	C_OBM	0	0.1μF 25V	—	—	Chip capacitor	3.2mm×1.6mm	✓
9	C_OBP	0	0.1μF 25V	—	—	Chip capacitor	3.2mm×1.6mm	✓
10	C_VM1	1	100μF 50V	—	—	Electrolytic capacitor		
11		0	Socket pin	—	—	Socket pin		✓
12	C_VDD	1	10μF 25V	—	—	Electrolytic capacitor		
13		0	Socket pin	—	—	Socket pin		✓
14	C_OSCM	1	270pF 25V	—	—	Chip capacitor	3.2mm×1.6mm	
15		0	270pF 25V	—	—	Lead capacitor	2.54mm pitch	✓
16		0	Socket pin	—	—	Socket pin		✓
17	CON1	1	Connector	—	—	CONN HEADER VERT 4POS		
18	OSCM	1	Check terminal	—	—	Check terminal for oscilloscope		
19	OUT_A-	1	Check terminal	—	—	Check terminal for logic		
20	OUT_A+	1	Check terminal	—	—	Check terminal for logic		
21	OUT_B-	1	Check terminal	—	—	Check terminal for logic		
22	OUT_B+	1	Check terminal	—	—	Check terminal for logic		
23	RSA	0	Check terminal	—	—	Check terminal for oscilloscope		✓
24	RSB	0	Check terminal	—	—	Check terminal for oscilloscope		✓
25	VCC	1	Check terminal	—	—	Check terminal for oscilloscope		

26	VDD	1	Check terminal	—	—	Check terminal for logic		
27	VM	1	Check terminal	—	—	Check terminal for logic		
28	VREFA	1	Check terminal	—	—	Check terminal for oscilloscope		
29	VREFB	1	Check terminal	—	—	Check terminal for logic		
30	CW/CCW	1	Check terminal	—	—	Check terminal for oscilloscope		
31	MO	1	Check terminal	—	—	Check terminal for oscilloscope		
32	D_MODE1	1	Check terminal	—	—	Check terminal for oscilloscope		
33	D_MODE2	1	Check terminal	—	—	Check terminal for oscilloscope		
34	CLK	1	Check terminal	—	—	Check terminal for oscilloscope		
35	ENABLE	1	Check terminal	—	—	Check terminal for oscilloscope		
36	RESET	1	Check terminal	—	—	Check terminal for oscilloscope		
37	GND	1	Check terminal	—	—	Check terminal for logic		
38	GND	1	Check terminal	—	—	Check terminal for logic		
39	GND	0	Check terminal	—	—	Check terminal for logic		✓
40	GND	0	Check terminal	—	—	Check terminal for logic		✓
41	GND	0	Check terminal	—	—	Check terminal for logic		✓
42	GND	0	Check terminal	—	—	Check terminal for logic		✓
43	GND	0	Check terminal	—	—	Check terminal for logic		✓
44	JP_VRF1	1	Pin header 2P	—	—	Single row plugs		
45		1	Jump socket	—	—	Position Shunt Connector		
46	JP_VRF2	1	Pin header 2P	—	—	Single row plugs		
47		1	Jump socket	—	—	Position Shunt Connector		
48	JP_VCC	1	Pin header 2P	—	—	Single row plugs		
49		1	Jump socket	—	—	Position Shunt Connector		
50	R_MOUT	0	100kΩ 0.25W	—	—	Leaded resistor	2.54mm pitch	✓
51		0	Socket pin	—	—	Socket pin		✓
52	R_OSCM	1	3.6kΩ	—	—	Chip resistor	3.2mm×1.6mm	
53		0	3.6kΩ	—	—	Leaded resistor	2.54mm pitch	✓
54		0	Socket pin	—	—	Socket pin		✓
55	R_VRF1	0	Socket pin	—	—	Socket pin		✓
56		0	Not mount	—	—	Leaded resistor	2.54mm pitch	✓
57	R_VRF2	0	Socket pin	—	—	Socket pin		✓

58		0	Not mount	—	—	Leaded resistor	2.54mm pitch	✓
59	R_RSA	1	0.22Ω 1W	—	—	Chip resistor	5.0mm×2.5mm	
60	R_RSB	1	0.22Ω 1W	—	—	Chip resistor	5.0mm×2.5mm	
61	SW1	0	Toggle Switch	—	—	SPDT Toggle Switch		✓
62		1	Pin header 3P	—	—	Single row plugs		
63		1	Jump socket	—	—	Position Shunt Connector		
64	SW2	0	Toggle Switch	—	—	SPDT Toggle Switch		✓
65		1	Pin header 3P	—	—	Single row plugs		
66		1	Jump socket	—	—	Position Shunt Connector		
67	SW3	0	Toggle Switch	—	—	SPDT Toggle Switch		✓
68		0	Pin header 3P	—	—	Single row plugs		✓
69		0	Jump socket	—	—	Position Shunt Connector		✓
70	SW4	0	Toggle Switch	—	—	SPDT Toggle Switch		✓
71		0	Pin header 3P	—	—	Single row plugs		✓
72		0	Jump socket	—	—	Position Shunt Connector		✓
73	SW5	0	Toggle Switch	—	—	SPDT Toggle Switch		✓
74		1	Pin header 3P	—	—	Single row plugs		
75		1	Jump socket	—	—	Position Shunt Connector		
76	SW6	0	Toggle Switch	—	—	SPDT Toggle Switch		✓
77		1	Pin header 3P	—	—	Single row plugs		
78		1	Jump socket	—	—	Position Shunt Connector		
79	SW7	0	Toggle Switch	—	—	SPDT Toggle Switch		✓
80		1	Pin header 3P	—	—	Single row plugs		
81		1	Jump socket	—	—	Position Shunt Connector		

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