# **TOSHIBA**

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2020-05-07 Rev.2.0

## RD Number: RD074

# RD Title: TB67S149FTG Evaluation circuit BOM

| Item<br>No. | Designator | Quantity | Value          | Part Number | Manufacturer | Description                     | Package | Not Mount |
|-------------|------------|----------|----------------|-------------|--------------|---------------------------------|---------|-----------|
| 1           | IC1        | 1        | TB67S149FTG    | TB67S149FTG | TOSHIBA      | Motor driver IC                 | QFN48   |           |
| 2           | VM         | 1        | Check terminal | _           | _            | Check terminal for logic        |         |           |
| 3           | GND        | 1        | Check terminal | —           | —            | Check terminal for logic        |         |           |
| 4           | VREF       | 1        | Check terminal | —           | —            | Check terminal for logic        |         |           |
| 5           | VDD        | 1        | Check terminal | —           | —            | Check terminal for oscilloscope |         |           |
| 6           | ERR        | 1        | Check terminal | -           | -            | Check terminal for oscilloscope |         |           |
| 7           | ALM        | 1        | Check terminal | —           | -            | Check terminal for oscilloscope |         |           |
| 8           | МО         | 1        | Check terminal | —           | -            | Check terminal for oscilloscope |         |           |
| 9           | LOUT       | 0        | Check terminal | -           | -            | Check terminal for oscilloscope |         | √         |
| 10          | COUT       | 0        | Check terminal | —           | -            | Check terminal for oscilloscope |         | √         |
| 11          | DOUT       | 0        | Check terminal | —           | -            | Check terminal for oscilloscope |         | √         |
| 12          | 45         | 1        | Check terminal | -           | -            | Check terminal for oscilloscope |         |           |
| 13          | 46         | 1        | Check terminal | —           | -            | Check terminal for oscilloscope |         |           |
| 14          | 47         | 1        | Check terminal | -           | -            | Check terminal for oscilloscope |         |           |
| 15          | 48         | 1        | Check terminal | —           | -            | Check terminal for oscilloscope |         |           |
| 16          | 3          | 1        | Check terminal | -           | -            | Check terminal for oscilloscope |         |           |
| 17          | 5          | 1        | Check terminal | —           | -            | Check terminal for oscilloscope |         |           |
| 18          | 6          | 1        | Check terminal | -           | -            | Check terminal for oscilloscope |         |           |
| 19          | 7          | 1        | Check terminal | -           | -            | Check terminal for oscilloscope |         |           |
| 20          | OUTA+      | 1        | Check terminal | -           | -            | Check terminal for logic        |         |           |
| 21          | OUTA-      | 1        | Check terminal | -           | -            | Check terminal for logic        |         |           |
| 22          | OUTB+      | 1        | Check terminal | -           | _            | Check terminal for logic        |         |           |
| 23          | OUTB-      | 1        | Check terminal | -           | -            | Check terminal for logic        |         |           |
| 24          | СОМА       | 1        | Check terminal | -           | -            | Check terminal for logic        |         |           |
| 25          | СОМВ       | 1        | Check terminal | -           | -            | Check terminal for logic        |         |           |

| 26 | ZD   | 1 | CMZ36         | CMZ36 | TOSHIBA | Zener diode Vz=36V       | M-FLAT      |              |
|----|------|---|---------------|-------|---------|--------------------------|-------------|--------------|
| 27 | R351 | 0 | Not mount     | -     | —       | Leaded resistor          |             | $\checkmark$ |
| 28 | R352 | 0 | Not mount     | —     | —       | Leaded resistor          |             | $\checkmark$ |
| 29 | R37  | 1 | 10kΩ          | -     | —       | Leaded resistor          |             |              |
| 30 | R38  | 1 | 10kΩ          | -     | —       | Leaded resistor          |             |              |
| 31 | R39  | 1 | 10kΩ          | -     | —       | Leaded resistor          |             |              |
| 32 | R40  | 1 | 10kΩ          | -     | —       | Leaded resistor          |             |              |
| 33 | C312 | 1 | 0.1µF 50V     | —     | —       | Chip capacitor           | 3.2mm×1.6mm |              |
| 34 | C33  | 1 | 0.1µF 25V     | -     | —       | Chip capacitor           | 3.2mm×1.6mm |              |
| 35 | C35  | 1 | 0.1µF 25V     | —     | —       | Chip capacitor           | 3.2mm×1.6mm |              |
| 36 | CDD  | 1 | 0.1µF 25V     | —     | —       | Chip capacitor           | 3.2mm×1.6mm |              |
| 37 | C13  | 0 | 0.1µF 25V     | -     | —       | Chip capacitor           | 3.2mm×1.6mm | $\checkmark$ |
| 38 | C17  | 0 | 0.1µF 25V     | —     | —       | Chip capacitor           | 3.2mm×1.6mm | $\checkmark$ |
| 39 | C19  | 0 | 0.1µF 25V     | —     | —       | Chip capacitor           | 3.2mm×1.6mm | $\checkmark$ |
| 40 | C23  | 0 | 0.1µF 25V     | —     | —       | Chip capacitor           | 3.2mm×1.6mm | $\checkmark$ |
| 41 | C311 | 1 | 100µF 50V     | -     | —       | Electrolytic capacitor   |             |              |
| 42 | SW3  | 0 | Pin header 3P | —     | —       | Single row plugs         |             | $\checkmark$ |
| 43 |      | 0 | Jump socket   | —     | —       | Position Shunt Connector |             | $\checkmark$ |
| 44 | SW5  | 1 | Pin header 3P | -     | —       | Single row plugs         |             |              |
| 45 |      | 1 | Jump socket   | _     | —       | Position Shunt Connector |             |              |
| 46 | SW6  | 1 | Pin header 3P | —     | -       | Single row plugs         |             |              |
| 47 |      | 1 | Jump socket   | —     | -       | Position Shunt Connector |             |              |
| 48 | SW7  | 1 | Pin header 3P | —     | —       | Single row plugs         |             |              |
| 49 |      | 1 | Jump socket   | —     | —       | Position Shunt Connector |             |              |
| 50 | SW45 | 1 | Pin header 3P | —     | —       | Single row plugs         |             |              |
| 51 |      | 1 | Jump socket   | —     | —       | Position Shunt Connector |             |              |
| 52 | SW46 | 1 | Pin header 3P | —     | —       | Single row plugs         |             |              |
| 53 |      | 1 | Jump socket   | —     | _       | Position Shunt Connector |             |              |
| 54 | SW47 | 1 | Pin header 3P | —     | —       | Single row plugs         |             |              |
| 55 |      | 1 | Jump socket   | _     | _       | Position Shunt Connector |             |              |
| 56 | SW48 | 1 | Pin header 3P | —     | _       | Single row plugs         |             |              |
| 57 |      | 1 | Jump socket   | _     | _       | Position Shunt Connector |             |              |

| 58 | CON1 | 1 | Connector     | — | — | CONN HEADER VERT 6POS    |   |
|----|------|---|---------------|---|---|--------------------------|---|
| 59 | CON2 | 0 | Connector     | — | — | CONN HEADER VERT 3POS    | √ |
| 60 | CON3 | 0 | Connector     | — | — | CONN HEADER VERT 3POS    | √ |
| 61 | JPCC | 1 | Pin header 2P | — | — | Single row plugs         |   |
| 62 |      | 1 | Jump socket   | — | — | Position Shunt Connector |   |
|    |      |   |               |   |   |                          |   |
|    |      |   |               |   |   |                          |   |
|    |      |   |               |   |   |                          |   |

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