

| Item No. | Designator | Quantity | Value | Part Number | Manufacturer | Description | Packaging | Typical Dimension mm(inches) |
|----------|--|----------|-------|-------------|-------------------|---------------------|-----------|------------------------------|
| 1 | IC1,IC2, IC7,IC8, IC13,IC14 | 6 | - | TC7SZ14F | TOSHIBA | Buffer | SMV | 2.9×2.8 |
| 2 | IC3,IC9, IC15 | 3 | - | OPA237 | Texas Instruments | Op Amp | 8SOIC | 6x4.9 |
| 3 | IC4,IC5, IC10,IC16, IC17 | 6 | - | TLP5214A | TOSHIBA | Photocoupler | SO16L | 10.3× 10.0 |
| 4 | IC6,IC12, IC18 | 3 | - | TLP7820 | TOSHIBA | Isolation Amplifier | SO8L | 11x5.8 |
| 5 | IC19 | 1 | - | MCU | - | MCU | - | - |
| 6 | Q1,Q2,Q3, Q4,Q5,Q6 | 6 | - | GT30J341 | TOSHIBA | IGBT | TO-3P(N) | 20x15.5 |
| 7 | D1,D6,D7, D8,D13, D14,D15, D20,D21 | 9 | - | CMF05 | TOSHIBA | Diode | M-FLAT | 2.4×4.7 |
| 8 | D2,D3,D9, D10,D16, D17 | 6 | - | CUZ8V2 | TOSHIBA | Zener Diode | USC | 2.5×1.25 |
| 9 | D4,D5, D11,D12, D18,D19 | 6 | - | CUS05F30 | TOSHIBA | Diode | USC | 2.5×1.25 |
| 10 | R1,R2,R20, R23,R24, R42,R45, R46,R64 | 9 | 10kΩ | | | 100mW、±5% | 1608 | 1.6 x 0.8 (0603) |
| 11 | R3,R8,R9, R10,R25, R30,R31, R32,R47, R52,R53, R54 | 12 | 10kΩ | | | 100mW、± 0.5% | 1608 | 1.6 x 0.8 (0603) |
| 12 | R4,R5,R6, R7,R26, R27,R28, R29,R48, R49,R50, R51 | 12 | 160Ω | | | 100mW、±5% | 1608 | 1.6 x 0.8 (0603) |
| 13 | R11,R12, R33,R34, R55,R56 | 6 | 1kΩ | | | 100mW、± 0.5% | 1608 | 1.6 x 0.8 (0603) |

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| 14 | R13,R16, R17,R35, R38,R39, R57,R60, R61 | 9 | 100Ω | | | 250mW, ±5% | 2012 | 2.0 x 1.2 (0805) |
| 15 | R14,R15, R36,R37, R58,R59 | 6 | 10Ω | | | 100mW, ±5% | 1608 | 1.6 x 0.8 (0603) |
| 16 | R18,R19, R40,R41, R62,R63 | 6 | 1kΩ | | | 100mW, ±1% | 1608 | 1.6 x 0.8 (0603) |
| 17 | R21,R43, R65 | 3 | 10kΩ | | | 100mW, ±1% | 1608 | 1.6 x 0.8 (0603) |
| 18 | R22,R44, R66 | 3 | 20m Ω | WSHP2818R 0200FEB | Vishay | 10W, ±1% | - | 7.1 x 4.6 |
| 19 | C1,C2,C3, C6,C7,C10, C18,C22, C23,C24, C27,C28, C31,C39, C43,C44, C45,C48, C49,C52, C60 | 21 | 100n F | | | Ceramic, 50V, ±10% | 1608 | 1.6 x 0.8 (0603) |
| 20 | C4,C21, C25,C42, C46,C63 | 6 | 1nF | | | Ceramic, 50V, ±10% | 1608 | 1.6 x 0.8 (0603) |
| 21 | C5,C8,C26, C29,C47, C50 | 6 | 68pF | | | Ceramic, 50V, ±10% | 1005 | 1.0 x 0.5 (0402) |
| 22 | C9,C30, C51 | 3 | 10μF | | | Ceramic, 25V, ±10% | 1608 | 1.6 x 0.8 (0603) |
| 23 | C11,C12, C14,C15, C32,C33, C35,C36, C53,C54, C56,C57 | 12 | 1μF | | | Ceramic, 50V, ±10% | 2012 | 2.0 x 1.2 (0805) |
| 24 | C13,C34, C55 | 3 | 10μF | | | Ceramic, 6.3V, ±10% | 2012 | 2.0 x 1.2 (0805) |
| 25 | C19,C20, C40,C41, C61,C62 | 6 | 120p F | | | Ceramic, 50V, ±10% | 1608 | 1.6 x 0.8 (0603) |

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