

Protection Board BOM

| Item | Reference | Qty | Pop | Manufacturer | Part Number | Description | Distributor | Stock Number | Value | Modifier | Cost@1 | Cost per Board |
|------|-----------|-----|-----|---------------------------------|-------------------|-------------------------------------------------------------|-------------|----------------------|--------------------------|----------|---------------|----------------|
| 1 | P1-2 | 2 | 1 | Molex | | | Digi-Key | WM4204-ND | 0.100" | 6-Pos | \$0.52 | \$1.04 |
| 2 | C7-8 | 2 | 1 | Panasonic Electronic Components | ECQ-E2473JB | Capacitor, Metallized Polyester, 0.047uF, 250V, 5%, Radial | Digi-Key | P14664-ND | 0.047uF | 250V | \$0.48 | \$0.96 |
| 3 | C9-10 | 2 | 1 | Nichicon | QXL2E104KTPT | Capacitor, Metallized Polyester, 0.1uF, 250VAC, 10%, Radial | Digi-Key | 493-3624-ND | 0.1uF | 250VAC | \$1.32 | \$2.64 |
| 4 | C5-6 | 2 | 1 | Panasonic Electronic Components | ECQ-E2105KB | Capacitor, Metallized Polyester, 1.0uF, 250V, 10%, Radial | Digi-Key | P10979-ND | 1.0uF | 250V | \$0.81 | \$1.62 |
| 5 | C1-4 | 4 | 1 | Nichicon | QXK2J225KTP | Capacitor, Metallized Polyester, 2.2uF, 630VDC, 10%, Radial | Digi-Key | 493-3557-ND | 2.2uF | 630VDC | \$4.31 | \$17.24 |
| 6 | D11-12 | 2 | 1 | Fairchild Semiconductor | DB3 | Diac, 28-36V, 2A, DO35 | Digi-Key | DB3CT-ND | 28-36V | 2A | \$0.27 | \$0.54 |
| 7 | D3-8 | 6 | 1 | STMicroelectronics | STTH1002CT | Diode, Dual, 200V, 8A, TO220AB | Digi-Key | 497-3540-5-ND | 200V | 8A | \$1.12 | \$6.72 |
| 8 | D1-2 | 2 | 1 | Littelfuse Inc | SMAJ5.0CA | Diode, TVS, 30.8VMMW, 49.9VC, Axial | Digi-Key | SMAJ5.0CALFCT-ND | 34.2V Break, 49.9V Clamp | 600W | \$0.76 | \$1.52 |
| 9 | U1-2 | 2 | 1 | Fairchild Semiconductor | FOD817A3SD | Optoisolator, Transistor Output, 5kVRMS, DIP4 | Digi-Key | FOD817A3SDCT-ND | 70V | 50mA | \$0.66 | \$1.32 |
| 10 | D9-10 | 2 | 1 | Comchip Technology | MP1004G-G | Rectifier, Bridge, 400V, 10A, MP8 | Digi-Key | 641-1376-ND | 400V | 10A | \$1.92 | \$3.84 |
| 11 | R5-6 | 2 | 1 | Bourns Inc. | PWR4412-2SBR0050F | Resistor, Current Sense, 0.005 Ohms, 1W, Radial | Digi-Key | PWR4412-2SBR0050F-ND | 0.005 Ohms | 1W | \$1.63 | \$3.26 |
| 12 | R7-8 | 2 | 1 | Yageo | MFR-25FBF52-1K | Resistor, Metal Film, 1.00K, 0.25W, 1%, Through-Hole | Digi-Key | 1.00KXBK-ND | 1K00 | 0.25W | \$0.12 | \$0.24 |
| 13 | R9-10 | 2 | 1 | Yageo | MFR-25FBF52-100R | Resistor, Metal Film, 100 Ohms, 0.25W, 1%, Through-Hole | Digi-Key | 100XBK-ND | 100R | 0.25W | \$0.12 | \$0.24 |
| 14 | R11-12 | 2 | 1 | Yageo | MFR-25FBF52-200R | Resistor, Metal Film, 200 Ohms, 0.25W, 1%, Through-Hole | Digi-Key | 200XBK-ND | 200R | 0.25W | \$0.12 | \$0.24 |
| 15 | D13-14 | 2 | 1 | Littelfuse Inc | S6025L | SCR, 1.5V Gate, 600V, 25A, TO220 | Digi-Key | S6025L-ND | 600V | 25A | \$3.03 | \$6.06 |
| 16 | J1-6 | 6 | 1 | Keystone Electronics | 8191 | Terminal, Vertical, Screw, Through-Hole | Digi-Key | 8191K-ND | 15A | Jun-32 | \$0.54 | \$3.24 |
| 17 | R1-4 | 4 | 1 | Panasonic Electronic Components | ERZ-V14D391 | Varistor, 351V, 6kA, Disc, 14mm | Digi-Key | P7266-ND | 351V | 6kA | \$1.12 | \$4.48 |
| | | | | | | | | | | | TOTAL: | \$55.20 |