

1. Diodes

Type	Max Current	Max Voltage	Package / Dimensions	Forward Voltage Drop	Price (USD)
Rectifier (1N4007)	1 A	1000 V	DO-41 (5.2 × 2.7 mm)	1.1 V @ 1 A	\$0.03 – \$0.10
Schottky (SS14)	1 A	40 V	SMA (4.6 × 2.6 mm)	0.3 V @ 1 A	\$0.05 – \$0.15
Zener (BZX55C5V1)	500 mA	5.1 V	DO-35 (3.6 × 1.8 mm)	Breakdown at 5.1 V	\$0.02 – \$0.10

2. Transistors

Type	Max Current	Max Voltage	Package / Dimensions	Gain (hFE)	Price (USD)
NPN (2N2222)	800 mA	40 V	TO-92 (5.2 × 4.7 mm)	75 – 300	\$0.05 – \$0.20
PNP (BC557)	100 mA	45 V	TO-92 (5.2 × 4.7 mm)	110 – 800	\$0.04 – \$0.15
MOSFET (IRF540N)	33 A	100 V	TO-220 (10 × 4.5 mm)	Rds(on) 0.044 Ω	\$0.50 – \$2.50

3. Relays

Type	Coil Voltage	Contact Rating	Dimensions (L×W×H)	Switching Type	Price (USD)
SPDT Miniature	5 V DC	10 A @ 250 VAC	19 × 15 × 15 mm	Mechanical	\$1.00 – \$2.50
DPDT Power Relay	12 V DC	30 A @ 250 VAC	30 × 30 × 25 mm	Mechanical	\$3.00 – \$6.00
Solid State Relay	3–32 V DC (input)	25 A @ 250 VAC	45 × 35 × 25 mm	Electronic	\$6.00 – \$12.00