

Bill Of Materials for Im35ext,

16 Capacitors

Quantity	References	Value	Description
10	C1-C2,C5-C7,C10-C14	0.1u	CAP SMD1206
2	C3-C4	0.68u	CAP SMD1206
2	C8-C9	10u	Electrolytic Capacitor, Miniature, 10 µF, 25 V, ML Series, ± Leaded, 4 mm
2	C15-C16	47u	Electrolytic Capacitor, Miniature, 10 µF, 25 V, ML Series, ± Leaded, 4 mm

Sub-totals:

32 Resistors

Quantity	References	Value	Description
1	R1	3k3	Through Hole Resistor 1/10W 1%
12	R2,R4,R6-R7,R16-R17, R21-R24,R26-R27	10k	SMD1206 Resistor 1/10W 1% 20%, Radial
2	R3,R5	100k	Through Hole Resistor 1/10W 1%
2	R8-R9	680	SMD1206 Resistor 1/10W 1% 20%, Radial
1	R10	3K3	SMD1206 Resistor 1/10W 1%
1	R11	2K7	SMD1206 Resistor 1/10W 1%
1	R12	4K7	SMD1206 Resistor 1/10W 1%
2	R13-R14	33K	SMD1206 Resistor 1/10W 1%
1	R18	5k6	SMD1206 Resistor 1/10W 1%
1	R19	5K6	SMD1206 Resistor 1/10W 1%
2	R20,R31	100	SMD1206 Resistor 1/10W 1%
1	R25	5k1	SMD1206 Resistor 1/10W 1%
1	R28	5K1	SMD1206 Resistor 1/10W 1%
2	R29-R30	47K	SMD1206 Resistor 1/10W 1%
2	R32-R33	330K	SMD1206 Resistor 1/10W 1%

Sub-totals:

9 Integrated Circuits

Quantity	References	Value	Description
1	U2	LM35	Precision Centigrade Temperature Sensor (-55C to 150C)
4	U3-U5,U7	AD822AP	Dual, Single Supply, Precision, Rail-To-Rail,Low Power, FET-Input Operational Amplifier (1.9MHz, 3V/us, 3V-36V)
1	U8	IRM-05-15S	AC/DC PCB Mount Power Supply (PSU), ITE, 1 Output, 5 W, 15 V, 330 mA
1	U9	ICL7660	Switched-Capacitor Voltage Converters.
1	U10	ATMEGA8	8 KBytes Flash, 1088 Bytes SRAM, 512 Bytes EEPROM, ADC, Analog Comparator, TWI, SPI, 3 Ports, 3 Timers, 1 USART
1	U11	7805	5V Fixed 1A Positive Power Supply Regulator.

Sub-totals:

2 Transistors

<u>Quantity</u>	<u>References</u>	<u>Value</u>	<u>Description</u>
1	Q2	BC857A	PNP Silicon Planar General Purpose Transistor
1	Q3	MPSA06	Silicon NPN Low Power Bipolar Transistor (625mW, 150eC)

Sub-totals:

9 Diodes

<u>Quantity</u>	<u>References</u>	<u>Value</u>	<u>Description</u>
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1	D3	1N4740A	10V 25mA Zener Diode
5	D9,D12,D15,D1-D4,D5-D8	BAT81	Small Signal Schottky Diode, Single, 40 V, 30 mA, DO35
1	D10	1N4148	Silicon Rectifier. Maximum Recurrent Peak Reverse Voltage 50V. Maximum Average Forward Rectified Current 1.0A
1	D13	LED-GREEN	Animated LED model (Green)
1	D14	LED-RED	Animated LED model (Red)

Sub-totals:

20 Miscellaneous

<u>Quantity</u>	<u>References</u>	<u>Value</u>	<u>Description</u>
1	LCD1	LM020L	16x1 Alphanumeric LCD
1	RL1	12V	RT424012 Power Relay, DPDT, 12 VDC, 8 A, RT2 Series, Through Hole,
1	RV1	11k	Rotary Potentiometer, Carbon, 10 kohm, 1 Turns, Linear, 50 mW, \pm 20%, PTV09A Series
1	RV2	47k	Rotary Potentiometer, Carbon, 50 kohm, 1 Turns, Linear, 50 mW, \pm 20%, PTV09A Series
2	RV3-RV4	10k	Trimmer Potentiometer, 10 kohm, 1 Turns, Through Hole
2	SW2-SW3	TL 46P 0	Lever switch, DPDT TL series, 2x ON - ON
12	X1-X2,X5-X14	CONN-SIL2	MSTBA2-5,08

Sub-totals: