

Reference	Value	Footprint	part	datasheet	Valid	Current (A)	Max Cur (A)	Cur_valid	Voltage (V)	Max Voltage (V)	Voltage_Valid	Power (W)	Max Power (W)	Power_valid	Temperature	Max temperature	Temp_valid
C1	100nF	Capacitor SMD:C 0805 2012Metric Pad1.18x1.45mm HandSolder	C0805C104K5RACTU	KEM C1002 X7R SMD.pdf	OK				3.365	50	OK				50	125	OK
C2	100nF	Capacitor SMD:C 0805 2012Metric Pad1.18x1.45mm HandSolder	C0805C104K5RACTU	KEM C1002 X7R SMD.pdf	OK				3.365	50	OK				50	125	OK
C3	100nF	Capacitor SMD:C 0805 2012Metric Pad1.18x1.45mm HandSolder	C0805C104K5RACTU	KEM C1002 X7R SMD.pdf	OK				3.365	50	OK				50	125	OK
C4	4.7uF	Capacitor SMD:C 0805 2012Metric Pad1.18x1.45mm HandSolder	C0805C475K3RACTU	KEM C1002 X7R SMD.pdf	OK				3.365	25	OK				50	125	OK
C5	10uF	Capacitor SMD:C 0805 2012Metric Pad1.18x1.45mm HandSolder	C0805C106K3PACTU	KEM C1006 X5R SMD.pdf	OK				5.25	25	OK				50	85	OK
C6	10uF	Capacitor SMD:C 0805 2012Metric Pad1.18x1.45mm HandSolder	C0805C106K3PACTU	KEM C1006 X5R SMD.pdf	OK				3.365	25	OK				50	85	OK
D1	RED LED	LED THT:LED D5.0mm			OK												
D2	GREEN LED	LED THT:LED D5.0mm			OK												
D3	POWER LED	LED_SMD:LED 1206 3216Metric Pad1.42x1.75mm HandSolder	QTLF650C4TR/FC15-21SYGC/S530-E2/TR8	DSE-0031723-QTLF650C4TR-FC15-21SYGC-S530-E2-TR8 -V1.pdf	OK	0.011212121	0.015	OK	3.365	5	OK	0.037728788	0.06	OK	50	85	OK
HS1	HEAT SINK	530002B02500G	530002B02500G	Boyd-Board-Level-Heatsinks-Catalog.pdf	OK										100	150	OK
HP	HEAT PASTE	-	TC3-1G	TC3-1G.pdf	OK										100	150	OK
J1	Conn 01x04 Pin	Connector PinHeader 2.54mm:PinHeader 1x04 P2.54mm Vertical			OK												
J2	OLED Display	Connector PinHeader 2.54mm:PinHeader 1x04 P2.54mm Vertical	oled display ruizhi 0.96	OLED_096.pdf	OK				3.365	5.2	OK				50	80	OK
J3	USB C Receptacle PowerOnly 6P	Connector USB:USB C Receptacle GCT USB4125-xx-x-0190 6P TopMnt Hori	USB4125-GF-A	usb4125-spec.pdf	OK	0.80207962	3	OK	5.25	48	OK				50	85	OK
Q1	BTA16-600CW	Package TO SOT THT:TO-220-3 Vertical	BTA16-600CWRG	bta16.pdf	OK	12	16	OK	325.2691193	600	OK	13	14.42307692	OK	117.6	125	OK
R1	1100ohm	Resistor THT:R Axial DIN0309 L9.0mm D3.2mm P12.70mm Horizontal	CFR-50JB-52-1K1	YAGEO-CFR DATASHEET.pdf	OK				230	300	OK	0.308611111	0.5	OK	50	70	OK
R2	1100ohm	Resistor THT:R Axial DIN0309 L9.0mm D3.2mm P12.70mm Horizontal	CFR-50JB-52-1K1	YAGEO-CFR DATASHEET.pdf	OK				230	300	OK	0.308611111	0.5	OK	50	70	OK
R3	1100ohm	Resistor THT:R Axial DIN0309 L9.0mm D3.2mm P12.70mm Horizontal	CFR-50JB-52-1K1	YAGEO-CFR DATASHEET.pdf	OK				230	300	OK	0.308611111	0.5	OK	50	70	OK
R4	1800ohm	Resistor SMD:R 0805 2012Metric Pad1.20x1.40mm HandSolder	ERA-6AEB182V	R1800_panasonic.pdf	OK				3.365	100	OK	0.006296978	0.125	OK	50	85	OK
R5	150ohm	Resistor SMD:R 0805 2012Metric Pad1.20x1.40mm HandSolder	CRCW0805150RFKEA	resistor_vishay.pdf	OK				3.365	150	OK	0.076250673	0.25	OK	50	70	OK
R6	150ohm	Resistor SMD:R 0805 2012Metric Pad1.20x1.40mm HandSolder	CRCW0805150RFKEA	resistor_vishay.pdf	OK				3.365	150	OK	0.076250673	0.25	OK	50	70	OK
R7	150ohm	Resistor SMD:R 0805 2012Metric Pad1.20x1.40mm HandSolder	CRCW0805150RFKEA	resistor_vishay.pdf	OK				3.365	150	OK	0.076250673	0.25	OK	50	70	OK
R12	150ohm	Resistor SMD:R 0805 2012Metric Pad1.20x1.40mm HandSolder	CRCW0805150RFKEA	resistor_vishay.pdf	OK				3.365	150	OK	0.076250673	0.25	OK	50	70	OK
R8	10kohm	Resistor SMD:R 0805 2012Metric Pad1.20x1.40mm HandSolder	CRCW080510K0FKEA	resistor_vishay.pdf	OK				3.365	150	OK	0.00114376	0.25	OK	50	70	OK
R9	10kohm	Resistor SMD:R 0805 2012Metric Pad1.20x1.40mm HandSolder	CRCW080510K0FKEA	resistor_vishay.pdf	OK				3.365	150	OK	0.00114376	0.25	OK	50	70	OK
R10	5.1kohm	Resistor SMD:R 0805 2012Metric Pad1.20x1.40mm HandSolder	CRCW08055K10FKEA	resistor_vishay.pdf	OK				5.25	150	OK	0.005459002	0.25	OK	50	70	OK
R11	5.1kohm	Resistor SMD:R 0805 2012Metric Pad1.20x1.40mm HandSolder	CRCW08055K10FKEA	resistor_vishay.pdf	OK				5.25	150	OK	0.005459002	0.25	OK	50	70	OK
SW1	Valid	Button Switch THT:SW PUSH 6mm H5mm			OK												
SW2	Up	Button Switch THT:SW PUSH 6mm H5mm			OK												
SW3	Down	Button Switch THT:SW PUSH 6mm H5mm			OK												
SW4	Left	Button Switch THT:SW PUSH 6mm H5mm			OK												
SW5	Right	Button Switch THT:SW PUSH 6mm H5mm			OK												
SW6	return	Button Switch THT:SW PUSH 6mm H5mm			OK												
SW7	NRST	Button Switch THT:SW PUSH 6mm H5mm			OK												
SW8	BOOT0	Button Switch THT:SW PUSH 6mm H5mm			OK												
U1	Thermistor NTC	Resistor THT:R Axial DIN0204 L3.6mm D1.6mm P2.54mm_Verical	NRBG105F3950B1F	eaton-nrbg-glass-sealed-radial-lead-ntc-thermistor-datasheet-elx1105-en.pdf	OK				3.365	50	OK	0.000233092	0.032	OK	260	300	OK
TH1	emitter MOC3063M	Package DIP:DIP-6 W7.62mm LongPads	MOC3063M	MOC3163M-D.pdf	OK	0.017946128	0.06	OK	3.365	6	OK	0.017946128	0.04935	OK	62.72775032	100	OK
U1	detector MOC3063M	Package DIP:DIP-6 W7.62mm LongPads	MOC3063M	MOC3163M-D.pdf	OK	0.89605818	1	OK	325.2691193	600	OK	0.045	0.0616	OK	75.56818182	100	OK
U2	STM32C011F6Px	Package SO:TSSOP-20 4.4x6.5mm P0.65mm	STM32C011F6P6	stm32c011f6.pdf	OK	0.067979798	0.1	OK	3.365	4	OK				50	85	OK
	STM32C031F6Px	Package SO:TSSOP-20 4.4x6.5mm P0.65mm	STM32C031F6P6	stm32c031f6.pdf	OK	0.067979798	0.1	OK	3.365	4	OK				50	85	OK
U4	LD1117S33TR SOT223	Package TO SOT SMD:SOT-223-3 TabPin2	LD1117S33TR	LD1117.pdf	OK	0.155139073	0.8	OK	5.25	15	OK	0.312605232	12	OK	84.38657547	125	OK
Vdr1	S14K230	Varistor:RV Disc D15.5mm W7.5mm P7.5mm	B72214S0231K101	SIOV_Leaded_StandarD.pdf	OK	12	3000	OK							50	105	OK