

Brakelight_Shutdown_BSPD_bom_

Component

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Component Groups:

Component Count:

Fitted Components:

Number of PCBs:

Total components:

Schematic Version:

Schematic Date:

BoM Date:

Schematic Source:

KiCad Version:

Brakelight_Shutdown_BSPD_bom_

Description

Capacitor, 0.1uF, 50V, 5%, 0805
Capacitor, 100pF, 50V, 5%, 0805
Capacitor, 10uF, 10V, 10%, 0805
Capacitor, 1uF, 25V, 10%, 0805
Capacitor, 22uF, 16V, 20%, 1206
Capacitor, 30pF, 50V, 5%, 0805
Capacitor, 47uF, 6.3V, 20%, 0805
Diode, Zener, 18V, 5W, 5%
LED, Green, 2.2V, 20mA, 0805
Fuse, PTC, 500mA, 16V, 1210
Microcontroller, 8-bit, 1KB RAM, 16KB Flash
Connector header through hole 2x3 0.100" (2.54mm)
Micro-MaTch connector 6 pin female right angle
Micro-MaTch connector 20 pin female right angle
Inductor, 4.7uH, 4.4A, 25mOhm, 20%
MOSFET, N-channel, 30V, 6A
Resistor, 0 ohm jumper, 0.1W, 0603
Resistor, 0 ohm jumper, 0.1W, 0603
Resistor, 100, 0.25W, 1%, 0805
Resistor, 100K, 0.125W, 1%, 0805
Resistor, 10K, 0.25W, 1%, 0805
Resistor, 10K, 5W, 1%, Axial

Resistor, 1K, 0.25W, 1%, 0805
Resistor, 200, 0.125W, 5%, 0805
Resistor, 51.1K, 0.125W, 1%, 0805
Resistor, 1.07K, 0.125W, 0.1%, 0805
High speed CAN transceiver, 1Mb/s
Op-amp, general purpose
Single channel positive logic NOR gate
Single channel positive logic AND gate
Buck converter, 4.5-17V input, adj 0.76-7V output, 1A, 580kHz
CRYSTAL 16.0000MHZ 18PF SMD

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Mon 04 Mar 2019 08:26:31 PM EST

/home/jerry/Desktop/Formula/MKIV-Boards/Boards/Brakelight_Shutdown_BSPD/Brakelight_Shutdown_BSPD.sch
Eeschema 5.0.2-bee76a0~70~ubuntu18.04.1

Brakelight_Shutdown_BSPD_bom_

Part	References	Value
C_0.1uF	C1 C6 C8 C9 C11 C14	C_0.1uF
C_100pF	C2	C_100pF
C_10uF	C5	C_10uF
C_1uF	C10 C13	C_1uF
C_22uF	C7	C_22uF
C_30pF	C3 C4	C_30pF
C_47uF	C12	C_47uF
D_Zener_18V	D2	D_Zener_18V
LED_0805	D1 D3 D4 D5 D6 D7 D8 D9 D10 D11 D12 D13	LED_0805
F_500mA_16V	F1	500mA
ATMEGA16M1	IC1	ATMEGA16M1
CONN_02X03	J3	CONN_02X03
MM_F_RA_06	J1	MM_F_RA_06
MM_F_RA_20	J2	MM_F_RA_20
L_4.7uH	L1	L_4.7uH
SSM3K333R	Q1 Q2 Q3 Q4 Q5 Q6 Q7	SSM3K333R
R_0	R33	R_0
R_0	R19	R_0_Jumper
R_100	R1	R_100
R_100K	R2 R4 R9 R22 R29 R30 R37	R_100K
R_10K	R3 R6 R8 R11 R13 R18 R23 R24 R25 R27 R31 R32 R34 R39	R_10k
R_10K_HV	R12 R15	R_10k
R_1K-formula	R36	R_1K-formula
R_1K	R10 R21 R26 R28 R35	R_1k
R_200	R5 R14 R17 R20 R41 R42 R44 R45 R46	R_200
R_51.1K	R16	R_51.1k
R_1.07K	R7	R_71.5K
MCP2561-E_S	U3	CAN_Transceiver
MCP6001	U2 U7	MCP6001
SN74LVC1G02	U5 U6	SN74LVC1G02
SN74LVC1G08	U1	SN74LVC1G08
TPS561201	U4	TPS561201
Crystal_SMD	Y1	Crystal_SMD

Brakelight_Shutdown_BSPD_bom_

Footprint	Quantity Per PCB
C_0805_OEM	6
C_0805_OEM	1
C_0805_OEM	1
C_0805_OEM	2
C_1206_OEM	1
C_0805_OEM	2
C_0805_OEM	1
DO-214AA	1
LED_0805_OEM	12
Fuse_1210	1
TQFP-32_7x7mm_Pitch0.8mm	1
Pin_Header_Straight_2x03	1
micromatch_female_ra_6	1
micromatch_female_ra_20	1
4.7uH_Inductor_OEM	1
SOT-23F	7
R_0603_1608Metric	1
R_2512_OEM	1
R_0805_OEM	1
R_0805_OEM	7
R_0805_OEM	14
R_0805_OEM	2
R_0805_OEM	1
R_0805_OEM	5
R_0805_OEM	9
R_0805_OEM	1
R_0805_OEM	1
SOIC-8_3.9x4.9mm_Pitch1.27mm_OEM	1
SOT-23-5_OEM	2
SOT-23-5_OEM	2
SOT-23-5_OEM	1
SOT-23-6_OEM	1
Crystal_SMD_FA238	1

Brakelight_Shutdown_BSPD_bom_

Datasheet

<http://datasheets.avx.com/X7RDielectric.pdf>
https://content.kemet.com/datasheets/KEM_C1003_C0G_SMD.pdf
http://www.samsungsem.com/kr/support/product-search/mlcc/_icsFiles/afldfile/2018/06/20/CL21A106KPFNNNE.pdf
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<http://portal.fciconnect.com/Comergent/fci/drawing/67996.pdf>
<http://www.te.com/commerce/DocumentDelivery/DDEController?Action=showdoc&DocId=Customer+Drawing%7F338070%7F>
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<https://drive.google.com/drive/folders/0B-V-iZf33Y4GNzhDQTJJZanJRbVk>
<http://industrial.panasonic.com/www-cgi/jvcr13pz.cgi?E+PZ+3+AOA0001+ERJ3GEY0R00V+7+WW>
<http://www.te.com/commerce/DocumentDelivery/DDEController?Action=srchrtv&DocNm=9-1773463-7&DocType=DS&DocLa>
<https://www.seielect.com/Catalog/SEI-rncp.pdf>
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<http://www.bourns.com/data/global/pdfs/CRS.pdf>
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<https://industrial.panasonic.com/cdbs/www-data/pdf/RDM0000/AOA0000C307.pdf>
<http://www.microchip.com/mymicrochip/filehandler.aspx?ddocname=en561044>
<http://ww1.microchip.com/downloads/en/DeviceDoc/21733j.pdf>
<http://www.ti.com/lit/ds/symlink/sn74lvc1g02.pdf>
<http://www.ti.com/lit/ds/symlink/sn74lvc1g08.pdf>
<http://www.ti.com/lit/ds/symlink/tps561201.pdf>
https://support.epson.biz/td/api/doc_check.php?dl=brief_FA-238V_en.pdf

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Package	MPN	MFN
Value	478-3352-1-ND	Digi-Key DK
Value	399-1122-1-ND	Digi-Key
	1276-1052-1-ND	DK
Value	1276-2887-1-ND 478-10487-1-ND	DK Digi-Key
Value	1276-2725-1-ND	Digi-Key
Value	1276-1130-1-ND	Digi-Key
Value	587-4280-1-ND	Digi-Key
DO-214AA (SMB)	SMBJ5355B-TPMSCT-ND	Digi-Key
Value	475-1410-1-ND	DK Digi-Key
Value	507-1786-1-ND	Digi-Key
Value	ATMEGA16M1-AU-ND	Digi-Key
Value	609-3234-ND	Digi-Key
J-6	338070-6	TE
	2-338070-0	TE
Value	445-6583-1-ND	Digi-Key
	SSM3K333RLFCT-ND	DK
	P0.0GCT-ND	DK
Value	A121322CT-ND	Digi-Key
Value	RNCP0805FTD100RCT-ND	Digi-Key
	P100KCCT-ND	DK
Value	CRS0805-FX-1002ELFCT-ND	Digi-Key DK
Value	CRS0805-FX-1002ELFCT-ND	Digi-Key
	RNCP0805FTD1K00CT-ND	DK
Value	RNCP0805FTD1K00CT-ND	Digi-Key DK
Value	RMCF0805JT200RCT-ND	DK Digi-Key
Value	311-51.1KCRCT-ND	Digi-Key
	P1.07KDACT-ND	DK
Value	MCP2561-E/SN-ND	Digi-Key
	MCP6001T-I/OTCT-ND	DK
	296-11598-1-ND	DK
	296-11602-1-ND	DK
Value	TPS561201	Digi-Key
Value	SER3686CT-ND	Digi-Key

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PurchasingLink

<https://www.digikey.com/products/en?keywords=478-3352-1-ND>
<https://www.digikey.com/product-detail/en/kemet/C0805C101J5GACTU/399-1122-1-ND/411397>
<https://www.digikey.com/product-detail/en/samsung-electro-mechanics/CL21A106KPFNNNE/1276-1052-1-ND/3889138>
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<https://www.digikey.com/products/en?keywords=SMBJ5355B-TPMSCCT-ND>
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<https://www.digikey.com/products/en?keywords=CRS0805-FX-1002ELFCT-ND>
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<https://www.digikey.com/products/en?keywords=RMCF0805JT200RCT-ND>
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<https://www.digikey.com/product-detail/en/microchip-technology/MCP6001T-I-OT/MCP6001T-I-OTCT-ND/697158>
<https://www.digikey.com/product-detail/en/texas-instruments/SN74LVC1G02DCKR/296-11598-1-ND/385737>
<https://www.digikey.com/product-detail/en/texas-instruments/SN74LVC1G08DCKR/296-11602-1-ND/385741>
<https://www.digikey.com/products/en?keywords=296-46928-1-ND>
<https://www.digikey.com/products/en?keywords=SER3686CT-ND>