

Project: Automotive_HV_Power_Supply_15W.PrjPcb

Source Data From: Automotive_HV_Power_Supply_15W.PrjPcb
 Project: Automotive_HV_Power_Supply_15W.PrjPcb
 Variant: standard_board

Bill of Materials



Solution Engineering Center
 Plestary

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#	Designator	Comment	Description	LibRef	SourceLibraryName	Manufacturer	Manufacturer Part Number	Supplier	Supplier Part Number	Supplier 2	Supplier Part Number 2	Quantity
1.	C2	470pF	MLC capacitor 470pF 1kV ±10% X7R Würth Elektronik	86544208017	capacitors.SVNDblib	Würth Elektronik	86544208017	Digi-Key	732-12097-1-ND	Mouser	710-88534271017	1
2.	C3, C4	100 nF	MIMET film capacitor 100nF 50V 21600Vdc TDK	83264381104J000	capacitors.SVNDblib	TDK	83264381104J000	Digi-Key	495-83264381104J000-ND	Mouser	871-83264381104J000	2
3.	C5	100 nF	Multilayer Ceramic Capacitors MLCC - SMD 1206 25 V 100 nF COG ± 1 % AEC-Q202 -55 -125 °C	GRT31C5C1E104FA02	capacitors.SVNDblib	Murata	GRT31C5C1E104FA02	Digi-Key	493-4500-1-ND	Mouser	81-GRT31C5C1C124JA02D	1
4.	C6	1000 µF	ALU electrolyte high current ripple 1000µF 25V 20% Nichicon	UBT1E102MHD10T0	capacitors.SVNDblib	NICHICON	UBT1E102MHD10T0	Digi-Key	493-4500-1-ND	Mouser	647-UBT1E102MHD10T0	1
5.	C7	470 nF	Multilayer Ceramic Capacitors MLCC - SMD 0805 50 V 470 nF X7R ± 10 % AEC-Q202 -55 -125 °C	GRT218R71H474KE01	capacitors.SVNDblib	Murata	GRT218R71H474KE01	Digi-Key	493-4500-1-ND	Mouser	81-GRT218R71H474KE01D	1
6.	C8	4.7 µF	Multilayer Ceramic Capacitors MLCC - SMD 1210 50 V 4.7 µF X7R ± 10 % AEC-Q202 -55 -125 °C	GRT32ER71H475KE01	capacitors.SVNDblib	Murata	GRT32ER71H475KE01	Digi-Key	493-4500-1-ND	Mouser	81-GRT32ER70J476KE13D	1
7.	C9	100 nF	Multilayer Ceramic Capacitors MLCC - SMD 1206 50 V 100 nF COG ± 5 % AEC-Q202 -55 -125 °C	GRT31C5C1H104JA02	capacitors.SVNDblib	Murata	GRT31C5C1H104JA02	Digi-Key	493-4500-1-ND	Mouser	81-GRT31C5C1H104JA02D	1
8.	C10, C15	120 pF	Multilayer Ceramic Capacitors MLCC - SMD 0603 100 V 120 pF COG ± 5 % AEC-Q202 -55 -125 °C	GRT1885C2A121JA02	capacitors.SVNDblib	Murata	GRT1885C2A121JA02	Digi-Key	490-GRT1885C2A121JA02DTR-ND	Mouser	81-GRT1885C2A121JA02D	2
9.	C12	150 nF	Multilayer Ceramic Capacitors MLCC - SMD 0603 25 V 150 nF X7R ± 10 % AEC-Q202 -55 -125 °C	GRT188R71E154KE01	capacitors.SVNDblib	Murata	GRT188R71E154KE01	Digi-Key	493-4500-1-ND	Mouser	81-GRT188R71E154KE01D	1
#	C13	1n8	Multilayer Ceramic Capacitors MLCC - SMD 0805 100 V 1n8 COG ± 5 % AEC-Q202 -55 -125 °C	GRT2165C2A182JA02	capacitors.SVNDblib	Murata	GRT2165C2A182JA02	Digi-Key	493-4500-1-ND	Mouser	81-GRT2165C2A182JA02D	1
#	C14	3n3	Multilayer Ceramic Capacitors MLCC - SMD 0805 100 V 3n3 COG ± 5 % AEC-Q202 -55 -125 °C	GRT2165C2A32JA02	capacitors.SVNDblib	Murata	GRT2165C2A32JA02	Digi-Key	493-4500-1-ND	Mouser	81-GRT2196G1C335KE01D	1
#	C17	4.7 pF	Multilayer Ceramic Capacitors MLCC - SMD 0603 100 V 4.7 pF COG ± 5 % AEC-Q202 -55 -125 °C	GCM1885C2A4R7CA16D	capacitors.SVNDblib	Murata	GCM1885C2A4R7CA16D	Digi-Key	GCM1885C2A4R7CA16D-ND	Mouser	81-GCM1885C2A4R7CA6D	1
#	CON1	RED	Banana Test Connector, 4mm, Receptacle, PCB Mount, 24 A, 1 kV, Gold Plated Contacts, Red	FCR730R	connectors.SVNDblib	CLIFF Electronic Components	FCR730R	Farnell	1854508			1
#	CON2	691313 510 002	PCB right angle connector 2 pins 5.08 mm pitch Würth Elektronik	691313510002	connectors.SVNDblib	Würth Elektronik	691313510002	Farnell	1641993	Mouser	710-691313510002	1
#	CON3	BLACK	Banana Test Connector, 4mm, Receptacle, PCB Mount, 24 A, 1 kV, Gold Plated Contacts, Black	FCR730B	connectors.SVNDblib	CLIFF Electronic Components	FCR730B	Farnell	1854507			1
#	CON4	613 008 243 121	WR-PHD 2.54 mm Angled Dual Socket Header 24 pins	613008243121	connectors.SVNDblib	Würth Elektronik	613008243121	Würth Elektronik	613008243121			1
#	CON5	691351 500 002	Cable connector series 351 2pins 5.08 mm Würth Elektronik	691351500002	connectors.SVNDblib	Würth Elektronik	691351500002	Würth Elektronik	691351500002			1
#	CY1	2n2	Disc ceramic capacitor 2n2 1500 VDC VSU 10 % Vishay AEC-Q200	AY1222M47Y5UC63L0	capacitors.SVNDblib	VISHAY	AY1222M47Y5UC63L0	Digi-Key	8C5430-ND	Mouser	72-AY1222M47Y5UC63L0	1
#	D1	FFSD0665B-F085	Ultra fast Schottky SiC diode 650V 6A AEC-Q101 ON Semiconductor	FFSD0665B-F085	diodes.SVNDblib	ON Semiconductor	FFSD0665B-F085	Digi-Key	488-FFSD0665B-F085CT-ND	Mouser	863-FFSD0665B-F085	1
#	D2	TSPM8210A	TVS 210V 600W SMD unidirectional Littelfuse AEC-Q101	TSPM8210A	diodes.SVNDblib	Littelfuse	TSPM8210A	Digi-Key	F10376CT-ND	Mouser	576-TSPM8210A	1
#	D3	SZ15MAS9318T3G	TVS zener diode 18 V 83 mA SMA AEC-Q101 ON Semiconductor	SZ15MAS9318T3G	diodes.SVNDblib	ON Semiconductor	SZ15MAS9318T3G	Digi-Key	SZ15MAS9318T3GOSTR-ND	Mouser	863-SZ15MAS9318T3G	1
#	D4	NRVUS1MFA	Super Fast diode 1000 V 1 A 75 ns SOD123FA AEC-Q101, ON Semiconductor	NRVUS1MFA	diodes.SVNDblib	ON Semiconductor	NRVUS1MFA	Mouser	863-NRVUS1MFA			1
#	D5	NSVBAS21AHT1G	Switching diode 250V 200mA SOD323 AEC-Q101 ON Semiconductor	NSVBAS21AHT1G	diodes.SVNDblib	ON Semiconductor	NSVBAS21AHT1G	Digi-Key	NSVBAS21AHT1GOST-ND	Mouser	863-NSVBAS21AHT1G	1
#	D6	SZMMS220T1G	Zener Single Diode, 18 V, 500 mW, SOD-123, 5 %, 2 Pins, 150 °C, AEC-Q101	SZMMS220T1G	diodes.SVNDblib	ON Semiconductor	SZMMS220T1G	Farnell	2728117	Mouser	863-SZMMS220T1G	1
#	D7	NRVBA130LT3G	Schottky diode 30 V 1 A SMA ON Semiconductor	NRVBA130LT3G	diodes.SVNDblib	ON Semiconductor	NRVBA130LT3G	Digi-Key	NRVBA130LT3GOSTR-ND	Mouser	863-NRVBA130LT3G	1
#	D8	SZMMS220T1G	Zener Diodes 20W 500mW SOD123 AEC-Q101 ON Semiconductor	SZMMS220T1G	diodes.SVNDblib	ON Semiconductor	SZMMS220T1G	Mouser	863-SZMMS220T1G	Digi-Key	SZMMS220T1G-ND	1
#	C1	NCV1362BA	Automotive Primary Side Flyback Controller	NCV1362BA026	ics.SVNDblib	ON Semiconductor	NCV1362BA0R2G	ON Semiconductor	NCV1362BA0R2G			1
#	L1	4.7 mH	Fixed Inductors RFB 1010 Lead Rad. 4.7mH 0.28A 9.60mH	RFB1010-47L	inductors.SVNDblib	Colcraft	RFB1010-47L	Farnell	2457823			1
#	Q1	NSVBC817-40W1	General purpose NPN transistor 45V 500mA ON Semiconductor	NSVBC817-40W1G	transistors.SVNDblib	ON Semiconductor	NSVBC817-40W1G	Digi-Key	NSVBC817-40W1GOSTR-ND	Mouser	863-NSVBC817-40W1G	1
#	Q3	NVHL160N1205C1	SiC NMOS 1200V 17A 160mOhm ON Semiconductor	NVHL160N1205C1	transistors.SVNDblib	ON Semiconductor	NVHL160N1205C1	ON Semiconductor	NVHL160N1205C1-ND			1
#	R3	6M8	High Ohmic / High Voltage Metal Glaze Leaded Resistors 0207 6M8 5% 250mW Vishay	VR250000680IA500	resistors.SVNDblib	Vishay	VR250000680IA500			Mouser	594-VR250000680IA5	1
#	R4	10M	High Ohmic / High Voltage Metal Glaze Leaded Resistors 0207 10M 5% 250mW Vishay	VR2500001005JA100	resistors.SVNDblib	Vishay	VR2500001005JA100			Mouser	594-5043DM10M001	1
#	R5, R6, R9	100k	SMD Chip Resistor, 100 kohm, MCWR Series, 200 V, Thick Film, 1206 [3216 Metric], 250 mW Multicomp	MCWR12X1003F1L	resistors.SVNDblib	Multicomp	MCWR12X1003F1L	Farnell	2447453			3
#	R10, R19	0R	SMD Chip Resistor, 0 ohm, ER18G Series, 200 V, Thick Film, 1206 [3216 Metric], 250 mW Panasonic	ER18G0R00V	resistors.SVNDblib	Panasonic	ER18G0R00V	Digi-Key	P0.0ECT-ND	Mouser	667-ER18G0R00V	2
#	R13	4k7	SMD thick film resistor 4k7 0603 1% 100 mW Panasonic	ERA3AE4701V	resistors.SVNDblib	Panasonic	ERA3AE4701V			Mouser	667-ERA-3AE4701V	1
#	R17	15k4	SMD thick film resistor 15k4 0805 1% 125 mW Panasonic	ERA6AE1543V	resistors.SVNDblib	Panasonic	ERA6AE1543V			Mouser	667-ERA-6AE1543V	1
#	R24	270k	SMD thick film resistor 270k 0603 1% 100 mW Panasonic	ERA3AE2703V	resistors.SVNDblib	Panasonic	ERA3AE2703V			Mouser	667-ERA-3AE2703V	1
#	R25	10k	SMD thick film resistor 10k 0805 1% 125 mW Panasonic	ERA6AE1002V	resistors.SVNDblib	Panasonic	ERA6AE1002V			Mouser	667-ERA-6AE1002V	1
#	R26	8R2	SMD thick film resistor 8 Ohm 1206 1% 500 mW Panasonic	ER18BQF8R2V	resistors.SVNDblib	Panasonic	ER18BQF8R2V	DigiKey	P17622CT-ND	Mouser	667-ER18BQF8R2V	1
#	R28	1k	SMD thick film resistor 1k 1206 1% 250 mW Panasonic	ERA8AE1001V	resistors.SVNDblib	Panasonic	ERA8AE1001V			Mouser	667-ERA-8AE1001V	1
#	R29	100k	SMD Thermistor, 100 kohm, NTCG-5 Series, 0805 [2012 Metric], 200 mW TDK	NTCG204CH104T1	resistors.SVNDblib	TDK	NTCG204CH104T1	Digi-Key	445-175466-1-ND	Mouser	810-NTCG204CH104T1	1
#	R30	34k8	SMD thick film resistor 34k8 0603 1% 100 mW Panasonic	ERA3AE3482V	resistors.SVNDblib	Panasonic	ERA3AE3482V			Mouser	667-ERA-3AE3482V	1
#	R31	1R8	SMD current sense resistor 1R8 1206 1% 330mW Panasonic	ER18BQF1R8V	resistors.SVNDblib	Panasonic	ER18BQF1R8V	Farnell	1717883	Mouser	667-ER18BQF1R8V	1
#	R32	1R2	SMD thick film resistor 1.2Ohm 1206 1% 500 mW Panasonic	ER18BQF1R2V	resistors.SVNDblib	Panasonic	ER18BQF1R2V	DigiKey	P17602CT-ND	Mouser	667-ER18BQF1R2V	1
#	R33	51k1	SMD thick film resistor 51k1 0603 1% 100 mW Panasonic	ERA3AE5112V	resistors.SVNDblib	Panasonic	ERA3AE5112V			Mouser	667-ERA-3AE5112V	1
#	R34	46k4	SMD thick film resistor 46k4 0603 1% 100 mW Panasonic	ERA3AE4642V	resistors.SVNDblib	Panasonic	ERA3AE4642V			Mouser	667-ERA-3AE4642V	1
#	S81, S82, S83, S84	Plastic spacer M3 M/F 8/5 HEX6	Plastic spacer internal/external M3x8 thread, 5mm Würth Elektronik	971050365	mechanical.SVNDblib	Würth Elektronik	971050365	Digi-Key	732-13041-ND	Mouser	710-971050365	4
#	ST1, ST2, ST3, ST4	Plastic spacer M3 F/F 10/25 HEX6	Plastic spacer internal/internal M3x6 thread, 25mm Würth Elektronik	970250365	mechanical.SVNDblib	Würth Elektronik	970250365	Digi-Key	732-13029-ND	Mouser	710-970250365	4
#	T1	750319106	Transformer for DC-DC (NCV1362 flyback 250V-900VDC@15W) converter from Würth Elektronik	TR_WE_750319106	transformers.SVNDblib	Würth Elektronik	TR_WE_750319106	Würth Elektronik	750319106			1
#	TP1	ORANGE	PTH testpoint eyelet 3.2mm orange Keystone Electronics	5008	connectors.SVNDblib	Keystone Electronics	5008	Digi-Key	36-5008-ND	Mouser	534-5008	1
#	TP2, TP3	RED	PTH testpoint eyelet 3.2mm red Keystone Electronics	5005	connectors.SVNDblib	Keystone Electronics	5005	Digi-Key	36-5005-ND	Mouser	534-5005	2
#	TP4	BROWN	PTH testpoint eyelet 3.2mm brown Keystone Electronics	5120	connectors.SVNDblib	Keystone Electronics	5120	Digi-Key	36-5120-ND	Mouser	534-5120	1
#	TP5	BLUE	PTH testpoint eyelet 3.2mm blue Keystone Electronics	5122	connectors.SVNDblib	Keystone Electronics	5122	Digi-Key	36-5122-ND	Mouser	534-5122	1
#	TP6	BLACK	PTH testpoint eyelet 3.2mm black Keystone Electronics	5006	connectors.SVNDblib	Keystone Electronics	5006	Digi-Key	36-5006-ND	Mouser	534-5006	1