

**TPPFC V2 Bill of Materials**  
**2017-06-23**  
**United Silicon Carbide, Inc.**

Description	Quantity	Designator	Manufacturer Part #	Manufacturer	Assembly
RECT BRIDGE GPP 25A 600V GBJ	1	U29	GBJ2506-BP	Micro Commercial Co	SMT
DC/DC CONVERTER +/-12V 6W	1	U17	NCM6D1212EC	Murata Power Solutions Inc.	TH
IC VREF SERIES 1.024V 8SOIC	1	U15	LM4140ACM-1.0/NOPB	Texas Instruments	SMT
SENSOR CURRENT HALL 8A, 12A, 25A	1	U14	LAH 25-NP	LEM USA Inc.	TH
CONVERTER DC/DC REG 5V 500MA	1	U9	V7805-500	CUI Inc.	TH
IC OPAMP AUDIO 22MHZ RRO 8SOIC	4	U16, U18, U19, U20	OPA1662AIDR	Texas Instruments	SMT
IC REG LDO 3.3V 50MA SOT23-5	1	U7	LP2980AIM5-3.3/NOPB	Texas Instruments	SMT
IC GATE DVR 9A NON-INV 8- SOIC	4	U4, U6, U23, U27	IXDD609SIA	IXYS Integrated Circuits Division	SMT
DGTL ISO 5.7KV 2CH 16SOIC	4	U3, U5, U22, U26	ISO7821FDWR	Texas Instruments	SMT
Linear Voltage Regulator IC Negative Fixed 1 Output - 5V 500mA 8-SOIC	4	U2, U24, U30, U31	LT1175CS8-5#PBF	Linear Technology	SMT
CONV DC/DC 1W DL +/- 12VOUT SIP7	4	U1, U21, U25, U28	RP-1212D	Recom Power	TH
TEST POINT PC COMPACT .063"D BLK	5	Test_GND1, Test_GND2, Test_GND3, Test_GND3, Test_GND4	5006	Keystone Electronics	TH
Thermistor 10 OHM 25% 15A 30MM	1	RT1	AS32 10015	Ametherm	SMT
RES SMD 150 OHM 1% 1/4W 1206	1	R37	RC1206FR-07150RL	Yageo	SMT
RES SMD 240K OHM 1% 2W 2512	4	R29, R30, R31, R32	3521240KFT	TE Connectivity AMP Connectors	SMT
RES SMD 14K OHM 1% 1/4W 1206	1	R28	CRCW120614K0FKEA	Vishay Dale	SMT
RES SMD 1M OHM 1% 1/4W 1206	6	R20, R21, R22, R23, R24, R25	RCV12061M00FKEA	Vishay BC Components	SMT
RES SMD 10K OHM 1% 1/4W 1206	13	R12, R17, R36, R38, R39, R40, R41, R42, R43, R44, R45, R66	CRCW120610K0FKEA	Vishay Dale	SMT
RES SMD 3K OHM 1% 1/10W 0603	5	R6, R11, R35, R60, R71	MCR03ERTF3001	Rohm Semiconductor	SMT
RES SMD 10 OHM 1/4W 0604 WIDE	4	R10, R15, R53, R64	RCL040610R0JNEA	Vishay Dale	SMT

RES SMD 0 OHM 1/4W 0604 WIDE	2	R8, R51	RCL04060000Z0EA	Vishay Dale	SMT
RES SMD 1K OHM 1% 1/10W 0603	12	R3, R7, R9, R14, R19, R46, R47, R49, R52, R58, R63, R69	MCR03ERTF1001	Rohm Semiconductor	SMT
RES SMD 7.5K OHM 1% 1/4W 1206	2	R26, R27	ERJ-8ENF7501V	Panasonic Electronic Components	SMT
RES SMD 0.0 OHM JUMPER 1/4W 1206	2	R1, R4	RC1206JR-070RL	Yageo	SMT
MOSFET N-CH 25V 680MA SOT-23	1	Q5	FDV303N	Fairchild Semiconductor	SMT
MOSFET N-CH 650V 130A MAX247	2	Q3, Q4	STY139N65M5	STMicroelectronics	TH
650V SiC Cascode	2	Q1, Q2	UJC0605K	USCi	TH
DIM100 CONNECTOR 5PK	1	P1	TMDSDIM100CON5PK	Texas Instruments	TH
Hex Standoff Threaded #4-40 Nylon 2.000"	4	MH10, MH11, MH12, MH13	4813	Keystone Electronics	TH
Common Boost Inductor	1	L1	MGT-YT-32835	Brightek (Europe) Ltd	TH
RELAY GEN PURPOSE SPDT 20A 5V 1W	1	K1	T90S5D12-5	TE Connectivity Potter & Brumfield Relays	TH
JACK NON-INSULATED .218"	2	J5	575-4	Keystone Electronics	TH
PC SNAPIN VERT HD M5 THD W/SCREW 30A	4	J1-Vp, J2-VDC, J3-Vn, J4-GND	7808	Keystone Electronics	TH
HEATSINK FOR TO-247 WITH 2 CLIPS	2	H1, H2	C247-050-2AE	Ohmite	TH
FUSE CLIP CARTRIDGE 250V 30A PCB	2	F1	01020078H	Littelfuse Inc.	TH
FUSE CERM 25A 250VAC 125VDC 3AB	1	(NA)	0326025.HXP	Littelfuse Inc.	Cartridge
DIODE GEN PURP 100V 300MA SOD123	3	D7, D8, D9	1N4148W-7-F	Diodes Incorporated	SMT
DIODE SCHOTTKY 40V 10A POWERDI5	4	D3, D4, D10, D13	PDS1040-13	Diodes Incorporated	SMT
LED GREEN CLEAR THIN 0603 SMD	9	D1, D2, D5, D6, D11, D12, D14, D15, D16	LTST-C191KGKT	Lite-On Inc.	SMT
CHOKE COMMON MODE 1000 OHM SMD	3	CM8, CM12, CM13	ACM2520-102-2P-T002	TDK Corporation	SMT
INDUCTOR COMMON MODE 50UH 0.8A	1	CM3	SRF0905-500Y	Bourns Inc.	SMT
2 Line Common Mode Choke Surface Mount 1.4 kOhm @ 100MHz 1.7A DCR 80 mOhm	4	CM1, CM2, CM4, CM5	ACM4520-142-2P-T000	TDK Corporation	SMT
CAP FILM 5UF 5% 1KVDC RADIAL	2	C95, C96	MKP1848S55010JP2C	Vishay BC Components	SMT

CAP CER 47PF 50V NPO 1206	1	C57	C1206C470K5GACTU	Kemet	SMT
CAP TANT 1UF 16V 20% 1206	1	C45	F931C105MAA	AVX Corporation	SMT
CAP ALUM 560UF 20% 500V SNAP	2	C42, C43	ALC10A561DL500	Kemet	SMT
CAP CER 0.1UF 1KV X7R 1812	4	C38, C39, C40, C41	C1812C104KDRAC7800	Kemet	SMT
CAP CER 100PF 50V COG 0603	8	C37, C47, C50, C52, C54, C56, C59, C61	C1608C0G1H101J080AA	TDK Corporation	SMT
0.10µF 50V Ceramic Capacitor X7R 0805	4	C28, C70, C106, C112	CL21B104KBCNNNC	Samsung Electro-Mechanics America, Inc.	SMT
CAP CER 0.1UF 50V 10% X7R 0603	23	C10, C13, C14, C15, C20, C23, C24, C25, C46, C49, C51, C53, C55, C58, C60, C64, C67, C71, C72, C81, C84, C85, C86	CL10B104KB8SFNC	Samsung Electro-Mechanics America, Inc.	SMT
CAP CER 10000PF 50V 10% X7R 0603	16	C9, C12, C16, C17, C19, C22, C26, C27, C63, C66, C73, C74, C80, C83, C87, C88	GRM188R71H103KA01D	Murata Electronics North America	SMT
1µF 50V Ceramic Capacitor X5R 0603 (1608 Metric)	8	C8, C11, C18, C21, C62, C65, C79, C82	CL10A105KB8NNNC	Samsung Electro-Mechanics America, Inc.	SMT
0.33µF 50V Ceramic Capacitor X7R 0805	4	C7, C69, C105, C111	GRM219R71H334KA88D	Murata Electronics North America	SMT
1µF 50V Ceramic Capacitor X7R 0805	12	C3, C5, C31, C35, C75, C77, C89, C98, C100, C102, C107, C109	CL21B105KBFNNNE	Samsung Electro-Mechanics America, Inc.	SMT
10µF 50V Ceramic Capacitor X5R 1206	25	C1, C2, C4, C6, C29, C30, C32, C33, C34, C36, C44, C48, C68, C76, C78, C90, C91, C92, C93, C94, C97, C99, C101, C108, C110	CL31A106KBHNNNE	Samsung Electro-Mechanics America, Inc.	SMT
TEST POINT PC COMPACT .063"D RED	8	-12V, 12V_IN, GPIO_10, GPIO_12, IL, VDC, Vn, Vp	5005	Keystone Electronics	TH
IC OPAMP AUDIO 22MHZ RRO 8SOIC	1	U8	OPA1662AIDR	Texas Instruments	DNI
RES SMD 0 OHM 1/4W 0604 WIDE	2	R13, R62	RCL04060000Z0EA	Vishay Dale	DNI
RES SMD 0.0 OHM JUMPER 1/4W 1206	2	R2, R5	RC1206JR-070RL	Yageo	DNI
RES SMD 205 OHM 1% 1/4W 1206	1	R48	ERJ-8ENF2050V	Panasonic Electronic Components	DNI
CAP CER 100PF 50V COG 0603	1	C104	C1608C0G1H101J080AA	TDK Corporation	DNI
CAP CER 0.1UF 50V 10% X7R 0603	1	C103	CL10B104KB8SFNC	Samsung Electro-Mechanics America, Inc.	DNI

\*DNI: Do not install. Components labeled with DNI are required to have the footprint on PCB open. Accidentally installing these components may result in functional failure.