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ecise current limit circuit for the TPS61088 Boost converter

Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer	Alternate PartNumber	Alternate Manufacturer
!PCB	1		Printed Circuit Board		PMP9806	Any	-	-
C1, C2, C4, C5, C6, C7	6	22uF	CAP, CERM, 22 µF, 16 V, +/- 10%, X5R, 1206	1206	GRM31CR61C226KE15L	MuRata		
C3	1	1uF	CAP, CERM, 1 µF, 25 V, +/- 10%, X7R, 0603	0603	GRM188R71E105KA12D	MuRata		
C8	1	4700pF	CAP, CERM, 4700 pF, 50 V, +/- 10%, X5R, 0402	0402	GRM155R61H472KA01D	MuRata		
C9, C16, C17	3	0.1uF	CAP, CERM, 0.1uF, 16V, +/-10%, X5R, 0402	0402	GRM155R61C104KA88D	MuRata		
C11	1	100pF	CAP, CERM, 100 pF, 50 V, +/- 1%, C0G/NP0, 0402	0402	GRM1555C1H101FA01D	MuRata		
C13, C20	2	47pF	CAP, CERM, 47 pF, 50 V, +/- 1%, C0G, 0402	0402	GRM1555C1H470FA01D	MuRata		
C14	1	4.7uF	CAP, CERM, 4.7uF, 10V, +/-10%, X5R, 0603	0603	0603ZD475KAT2A	AVX		
C15	1	0.047uF	CAP, CERM, 0.047 µF, 16 V, +/- 10%, X7R, 0402	0402	GRM155R71C473KA01D	MuRata		
C18	1	10uF	CAP, CERM, 10 µF, 25 V, +/- 20%, X5R, 0603	0603	C1608X5R1E106M080AC	TDK		
C19	1	100pF	CAP, CERM, 100 pF, 50 V, +/- 5%, C0G/NP0, 0402	0402	GRM1555C1H101JA01D	MuRata		
D1	1	75V	Diode, Switching, 75 V, 0.3 A, SMD, 2-Leads, Body 1.2x0.8mm	SMD, 2-Leads, Body 1.2x0.8mm	1N4148WT	Fairchild Semiconductor		
JP1	1		Header, 100mil, 3x1, Tin, TH	Header, 3 PIN, 100mil, Tin	PEC03SAAN	Sullins Connector Solutions		
L1	1	1.8uH	Inductor, Shielded Drum Core, Metal Composite, 1.2 µH, 12.9 A, 0.007 ohm, SMD	9.5x8.7mm	CDMC8D28NP-1R2MC	Sumida		
R1	1	768k	RES, 768 k, 1%, 0.063 W, 0402	0402	CRCW0402768KFKED	Vishay-Dale		
R2, R3, R4	3	120k	RES, 120 k, 1%, 0.063 W, 0402	0402	CRCW0402120KFKED	Vishay-Dale		
R5, R8	2	100k	RES, 100k ohm, 1%, 0.063W, 0402	0402	CRCW0402100KFKED	Vishay-Dale		
R6	1	17.4k	RES, 17.4k ohm, 1%, 0.063W, 0402	0402	CRCW040217K4FKED	Vishay-Dale		
R7	1	330k	RES, 330 k, 5%, 0.063 W, 0402	0402	CRCW0402330KJNED	Vishay-Dale		
R10	1	0.025	RES, 0.025, 1%, 1 W, 2010	2010	CSRN2010FK25L0	Stackpole Electronics Inc		
R11	1	10.0	RES, 10.0, 1%, 0.063 W, 0402	0402	CRCW040210R0FKED	Vishay-Dale		
R12	1	12.1	RES, 12.1, 1%, 0.063 W, 0402	0402	CRCW040212R1FKED	Vishay-Dale		
R15, R16	2	10.5k	RES, 10.5 k, 1%, 0.063 W, 0402	0402	CRCW040210K5FKED	Vishay-Dale		
R17	1	232k	RES, 232 k, 1%, 0.063 W, 0402	0402	CRCW0402232KFKED	Vishay-Dale		
R18	1	169k	RES, 169 k, 1%, 0.063 W, 0402	0402	CRCW0402169KFKED	Vishay-Dale		
R20	1	0	RES, 0, 5%, 0.063 W, 0402	0402	RC0402JR-070RL	Yageo America		
U1	1		13.2-V Output, Synchronous Boost Converter with 10-A Switch, RHL0020A	RHL0020A	TPS61088RHLR	Texas Instruments	TPS61088RHLT	Texas Instruments
U2	1		3-MHz, Low-Power, Internal EMI Filter, RRIO, Operational Amplifier, DGK0008A (VSSOP-8)	DGK0008A	TLV2314IDGKR	Texas Instruments	TLV2314IDGKT	Texas Instruments
C12	0	2200pF	CAP, CERM, 2200 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603	GRM1885C1H222JA01D	MuRata		
R9	0	1.00	RES, 1.00, 1%, 0.125 W, 0805	0805	CRCW08051R00FKEA	Vishay-Dale		
R161	0	16.2k	RES, 16.2 k, 1%, 0.063 W, 0402	0402	CRCW040216K2FKED	Vishay-Dale		
R162	0	7.87k	RES, 7.87 k, 1%, 0.063 W, 0402	0402	CRCW04027K87FKED	Vishay-Dale		

Notes:

Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer	Alternate PartNumber	Alternate Manufacturer

Unless otherwise noted in the Alternate PartNumber and/or Alternate Manufacturer columns, all parts may be substituted with equivalents.

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