

BOURNS Transient Blocking Units



RoHS Compliant. This product is RoHS compliant.

TBU™ P500-G & P850-G PROTECTORS

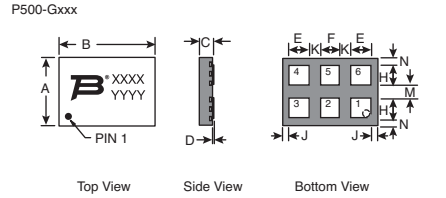
- Features:**
- Formerly FulTec brand
 - Extremely high speed performance
 - Blocks high voltages and currents
 - Two TBU™ protectors in one small package
 - Simple, superior circuit protection
 - Minimal PCB area
 - RoHS compliant, UL recognized

- Applications:**
- POTS linecards
 - VoIP equipment
 - Voice and data combo linecards
 - ONU, ONT
 - Gateways
 - Cable and DSL modems

Pad Designation						
Pad #	1 & 1A	2	3 & 3A	4 & 4A	5	6 & 6A
Apply:	Tip In	NC	Tip Out	Ring Out	NC	Ring In

	Dimensions: mm (in.)													
	A	B	C	D	E	F	G	H	J	K	L	M	N	
P500-G	3.40 (.139)	5.90 (.232)	0.80 (.031)	0.000 (.000)	1.15 (.045)	1.05 (.041)	-	1.10 (.043)	0.375 (.015)	0.70 (.028)	-	0.70 (.028)	0.375 (.015)	
Min.	4.00 (.157)	6.00 (.236)	0.85 (.033)	0.025 (.001)	1.25 (.049)	1.15 (.045)	-	1.20 (.047)	0.425 (.017)	0.75 (.030)	-	0.75 (.030)	0.425 (.017)	
Typ.	4.10 (.161)	6.10 (.240)	0.90 (.035)	0.050 (.002)	1.35 (.053)	1.25 (.049)	-	1.30 (.051)	0.475 (.019)	0.80 (.031)	-	0.80 (.031)	0.475 (.018)	
Max.	3.40 (.139)	8.15 (.321)	0.80 (.031)	0.000 (.000)	1.15 (.045)	1.05 (.041)	0.725 (.029)	1.10 (.043)	0.375 (.015)	0.25 (.010)	0.70 (.028)	0.70 (.028)	0.375 (.015)	
P850-G	4.00 (.157)	6.00 (.236)	0.85 (.033)	0.025 (.001)	1.25 (.049)	1.15 (.045)	0.825 (.032)	1.20 (.047)	0.425 (.017)	0.30 (.012)	0.75 (.030)	0.75 (.030)	0.425 (.017)	
Min.	4.10 (.161)	8.35 (.329)	0.90 (.035)	0.050 (.002)	1.35 (.053)	1.25 (.049)	0.925 (.036)	1.30 (.051)	0.475 (.019)	0.35 (.014)	0.80 (.031)	0.80 (.031)	0.475 (.018)	
Typ.	4.10 (.161)	8.35 (.329)	0.90 (.035)	0.050 (.002)	1.35 (.053)	1.25 (.049)	0.925 (.036)	1.30 (.051)	0.475 (.019)	0.35 (.014)	0.80 (.031)	0.80 (.031)	0.475 (.018)	
Max.	4.10 (.161)	8.35 (.329)	0.90 (.035)	0.050 (.002)	1.35 (.053)	1.25 (.049)	0.925 (.036)	1.30 (.051)	0.475 (.019)	0.35 (.014)	0.80 (.031)	0.80 (.031)	0.475 (.018)	

NC=Solder to PCB; do not make electrical connection, do not connect to ground



MOUSER STOCK NO.	Bourns Part Number	Vimp (V)	Iop (max) (mA)	Iout (max) (mA)	Price Each				Reel Qty.	Price Per Piece
					1	25	50	100		
652-P500-G120-WH	P500-G120-WH	500	100	200	.88	.81	.77	.59	3000	.48
652-P500-G200-WH	P500-G200-WH	500	200	400	.88	.81	.77	.59	3000	.48
652-P850-G120-WH	P850-G120-WH	850	100	200	1.09	.98	.85	.73	3000	.58
652-P850-G200-WH	P850-G200-WH	850	200	400	1.09	.98	.85	.73	3000	.58

For quantities greater than listed, call for quote.

TBU™ P650-U AND P850-U PROTECTORS

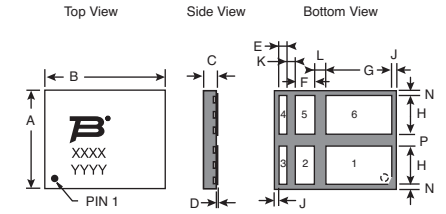
- Features:**
- Formerly FulTec brand
 - Extremely high speed perform.
 - Blocks high voltages & currents
 - Low insertion loss
 - Two TBU™ protectors in one small package
 - Very high bandwidth; GHz compatible
 - RoHS compliant, UL recognized

- Applications:**
- Mb Ethernet port protection
 - Gb Ethernet port protection
 - Isolated and floating interfaces

Pad Designation						
Pad #	1	2	3	4	5	6
Apply:	In1	NC	Out1	Out2	NC	In2

	Dimensions: mm (in.)													
	A	B	C	D	E	F	G	H	J	K	L	N	P	Q
Min.	6.15 (.242)	7.85 (.301)	0.80 (.031)	0.000 (.000)	0.50 (.020)	1.20 (.047)	4.20 (.165)	2.45 (.096)	0.20 (.008)	0.45 (.018)	0.65 (.026)	0.20 (.008)	0.70 (.028)	3.20 (.126)
Typ.	6.25 (.246)	7.75 (.305)	0.85 (.033)	0.025 (.001)	0.55 (.022)	1.25 (.049)	4.25 (.167)	2.50 (.098)	0.25 (.010)	0.50 (.020)	0.70 (.028)	0.25 (.010)	0.75 (.030)	3.25 (.128)
Max.	6.35 (.250)	7.85 (.309)	0.90 (.035)	0.050 (.002)	0.60 (.024)	1.30 (.051)	4.30 (.169)	2.55 (.100)	0.30 (.012)	0.55 (.022)	0.75 (.030)	0.30 (.012)	0.80 (.031)	3.30 (.130)

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MOUSER STOCK NO.	Bourns Part Number	Vimp (V)	Iop (max) (mA)	Iout (max) (mA)	Price Each				Reel Qty.	Price Per Piece
					1	25	50	100		
652-P650-U180-WH	P650-U180-WH	650	180	360	1.53	1.39	1.18	1.02	3000	.826
652-P650-U260-WH	P650-U260-WH	650	260	520	1.53	1.39	1.18	1.02	3000	.826
652-P850-U180-WH	P850-U180-WH	850	180	360	1.58	1.43	1.23	1.05	3000	.845
652-P850-U260-WH	P850-U260-WH	850	260	520	1.58	1.43	1.23	1.05	3000	.845

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TBU™ C650 AND C850 PROTECTORS

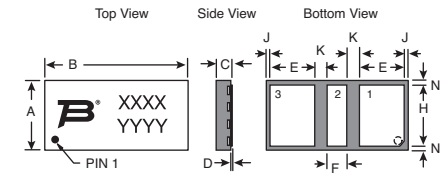
- Features:**
- Formerly FulTec brand
 - Extremely high speed performance
 - Blocks high voltages and currents
 - Very high bandwidth; GHz compatible

- Small package, minimal PCB area
- Simple, superior circuit protection
- RoHS compliant, UL recognized

- Applications:**
- Combo voice/xDSL linecards
 - Voice linecards
 - MDF, primary protection modules
 - Process control equipment
 - Test and measurement equipment
 - General electronics

	Dimensions: mm (in.)									
	A	B	C	D	E	F	H	J	K	N
Min.	3.90 (.154)	8.15 (.321)	0.80 (.031)	0.000 (.000)	2.55 (.100)	1.10 (.043)	1.40 (.136)	0.20 (.008)	0.65 (.026)	0.20 (.008)
Typ.	4.00 (.157)	8.25 (.325)	0.85 (.033)	0.025 (.001)	2.60 (.102)	1.15 (.045)	1.45 (.138)	0.25 (.010)	0.70 (.028)	0.25 (.010)
Max.	4.10 (.161)	8.35 (.329)	0.90 (.035)	0.050 (.002)	2.65 (.104)	1.20 (.047)	1.50 (.140)	0.30 (.012)	0.75 (.030)	0.30 (.012)

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MOUSER STOCK NO.	Bourns Part Number	Vimp (V)	Iop (max) (mA)	Iout (max) (mA)	Price Each				Reel Qty.	Price Per Piece
					1	25	50	100		
652-C650-100-WH	C650-100-WH	650	100	200	1.43	1.30	1.21	.96	6000	.75
652-C650-180-WH	C650-180-WH	650	180	360	1.43	1.30	1.21	.96	6000	.75
652-C650-260-WH	C650-260-WH	650	260	520	1.43	1.30	1.21	.96	6000	.75
652-C850-180-WH	C850-180-WH	850	180	360	1.48	1.35	1.20	.98	3000	.79
652-C850-260-WH	C850-260-WH	850	260	520	1.48	1.35	1.20	.98	3000	.79

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TBU™ P40-G PROTECTOR

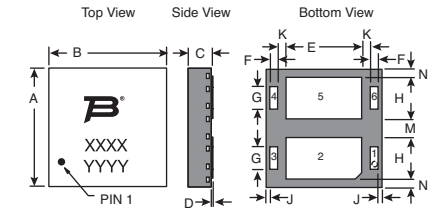
- Features:**
- Formerly FulTec brand
 - Extremely high speed performance
 - Low impedance
 - Very high bandwidth; GHz compatible
 - Simple, superior circuit protection
 - RoHS compliant, UL recognized

- Applications:**
- xDSL (ADSL, VDSL, VDSL2)
 - High Data Rate Interface IC protection (LVDS, HDMI, etc.)
 - Industrial sensors and controls
 - General electronics

Pad Designation						
Pad #	1	2	3	4	5	6
Apply:	In1	NC	Out1	Out2	NC	In2

	Dimensions: mm (in.)											
	A	B	C	D	E	F	G	H	J	K	M	N
Min.	3.90 (.154)	3.90 (.154)	0.80 (.031)	0.000 (.000)	2.55 (.100)	0.20 (.008)	0.75 (.030)	1.40 (.055)	0.10 (.004)	0.25 (.010)	0.55 (.022)	0.20 (.008)
Typ.	4.00 (.157)	4.00 (.157)	0.85 (.033)	0.025 (.001)	2.60 (.102)	0.25 (.010)	0.80 (.031)	1.45 (.057)	0.15 (.006)	0.30 (.012)	0.60 (.024)	0.25 (.010)
Max.	4.10 (.161)	4.10 (.161)	0.90 (.035)	0.050 (.002)	2.65 (.104)	0.30 (.012)	0.85 (.033)	1.50 (.059)	0.20 (.008)	0.35 (.014)	0.65 (.026)	0.30 (.012)

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MOUSER STOCK NO.	Bourns Part Number	Vimp (V)	Iop (max) (mA)	Iout (max) (mA)	Price Each				Reel Qty.	Price Per Piece
					1	25	50	100		
652-P40-G240-WH	P40-G240-WH	40	240	480	1.01	.90	.72	.68	3000	.54

For quantities greater than listed, call for quote.

