

BDW93CFP / BDW94CFP

THERMAL DATA

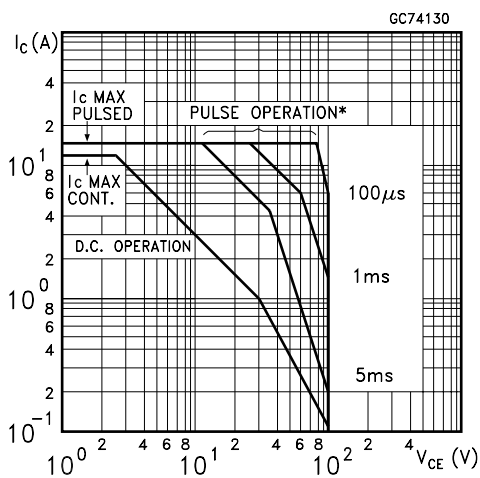
R _{thj-case}	Thermal Resistance Junction-case	Max	3.8	°C/W
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ELECTRICAL CHARACTERISTICS (T_{case} = 25 °C unless otherwise specified)

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
I _{CBO}	Collector Cut-off Current (I _E = 0)	V _{CB} = 100 V V _{CB} = 100 V T _{case} = 150 °C			100 5	μA mA
I _{CEO}	Collector Cut-off Current (I _B = 0)	V _{CE} = 80 V			1	mA
I _{EBO}	Emitter Cut-off Current (I _C = 0)	V _{EB} = 5 V			2	mA
V _{CEO(sus)*}	Collector-Emitter Sustaining Voltage (I _B = 0)	I _C = 100 mA	100			V
V _{CE(sat)*}	Collector-Emitter Saturation Voltage	I _C = 5 A I _C = 10 A I _B = 20 mA I _B = 100 mA			2 3	V V
V _{BE(sat)*}	Base-Emitter Saturation Voltage	I _C = 5 A I _C = 10 A I _B = 20 mA I _B = 100 mA			2.5 4	V V
h _{FE*}	DC Current Gain	I _C = 3 A I _C = 5 A I _C = 10 A V _{CE} = 3 V V _{CE} = 3 V V _{CE} = 3 V	1000 750 100		20000	
V _{F*}	Parallel-diode Forward Voltage	I _F = 5 A I _F = 10 A		1.3 1.8	2 4	V V
h _{fe}	Small Signal Current Gain	I _C = 1 A f = 1 MHz V _{CE} = 10 V	20			

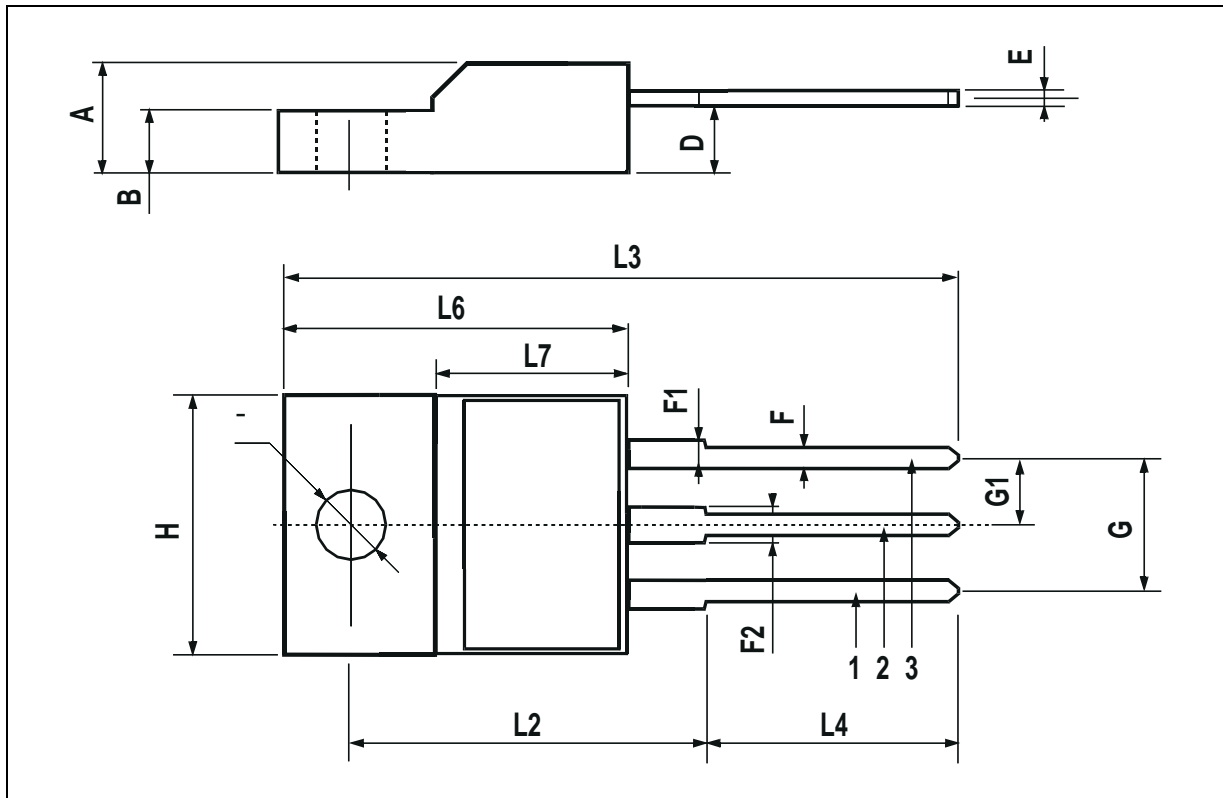
* Pulsed: Pulse duration = 300 μs, duty cycle 1.5 %
For PNP types voltage and current values are negative.

Safe Operating Area



TO-220FP MECHANICAL DATA

DIM.	mm			inch		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A	4.4		4.6	0.173		0.181
B	2.5		2.7	0.098		0.106
D	2.5		2.75	0.098		0.108
E	0.45		0.7	0.017		0.027
F	0.75		1	0.030		0.039
F1	1.15		1.7	0.045		0.067
F2	1.15		1.7	0.045		0.067
G	4.95		5.2	0.195		0.204
G1	2.4		2.7	0.094		0.106
H	10		10.4	0.393		0.409
L2		16			0.630	
L3	28.6		30.6	1.126		1.204
L4	9.8		10.6	0.385		0.417
L6	15.9		16.4	0.626		0.645
L7	9		9.3	0.354		0.366
Ø	3		3.2	0.118		0.126



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