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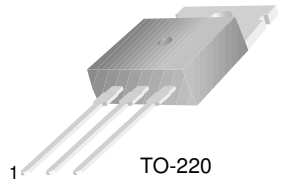
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FAIRCHILD
SEMICONDUCTOR®

BUT12/12A

High Voltage Power Switching Applications



TO-220

1.Base 2.Collector 3.Emitter

NPN Silicon Transistor

Absolute Maximum Ratings T_C=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage		
	: BUT12	850	V
	: BUT12A	1000	V
V_{CEO}	Collector-Emitter Voltage		
	: BUT12	400	V
	: BUT12A	450	V
I_C	Collector Current (DC)	8	A
I_{CP}	*Collector Current (Pulse)	20	A
I_B	Base Current	4	A
P_C	Collector Dissipation (T_C=25°C)	100	W
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	- 65 ~ 175	°C

Electrical Characteristics T_C=25°C unless otherwise noted

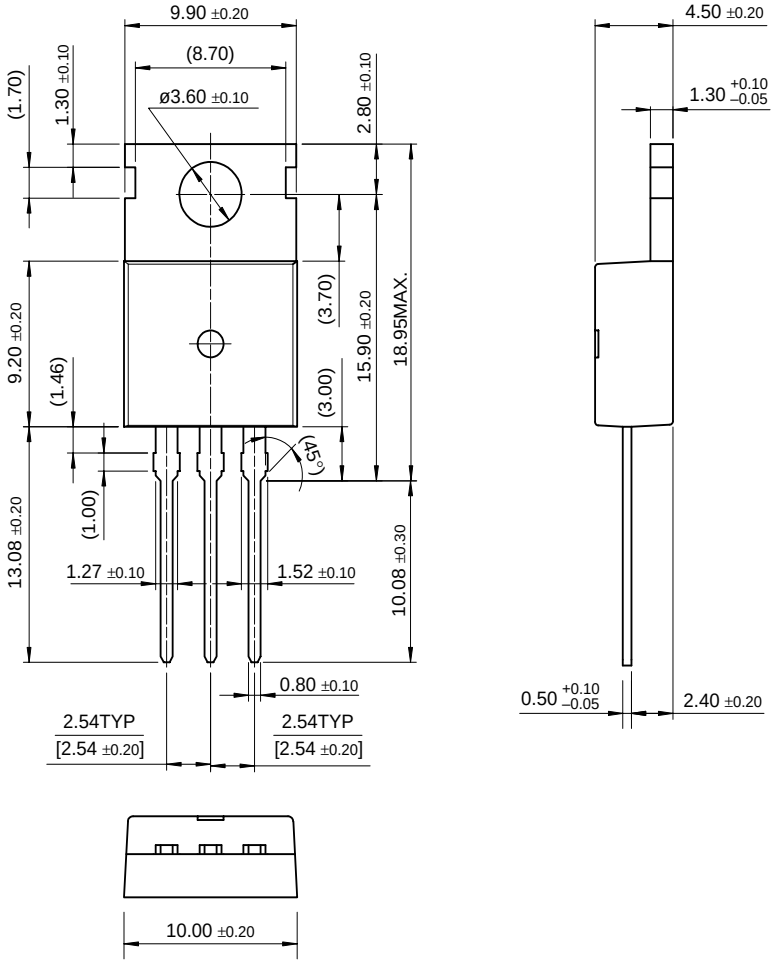
Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
V_{CEO}(sus)	* Collector-Emitter Sustaining Voltage	I_C = 100mA, L = 25mH	400			V
I_{CES}	Collector Cut-off Current	V_{CE} = V_{CES}, V_{BE} = 0			1	mA
I_{EBO}	Emitter Cut-off Current	V_{BE} = 9V, I_C = 0			10	mA
V_{CE}(sat)	* Collector-Emitter Saturation Voltage	I_C = 6A, I_B = 1.2A			1.5	V
V_{BE}(sat)	* Base-Emitter Saturation Voltage	I_C = 6A, I_B = 1.2A			1.5	V
t_{ON}	Turn On Time	V_{CC} = 250V, I_C = 6A I_{B1} = - I_{B2} = 1.2A R_L = 41.6Ω			1	µs
t_{STG}	Storage Time				4	µs
t_F	Fall Time				0.8	µs

* Pulsed Test: PW = 300µs, duty cycle = 1.5%

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Package Demensions

TO-220



Dimensions in Millimeters

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Definition of Terms

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No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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