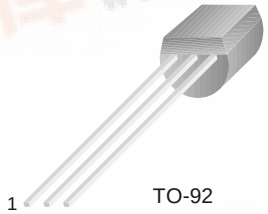
FAIRCHILD SEMICONDUCTOR®

BC63916

Switching and Amplifier Applications



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TO-92

1. Emitter 2. Collector 3. Base

NPN Epitaxial Silicon Transistor

Absolute Maximum Ratings T_a=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V_{CER}	Collector-Emitter Voltage at R_{BE}=1KΩ	100	V
V_{CES}	Collector-Emitter Voltage	100	V
V_{CEO}	Collector-Emitter Voltage	80	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	1	A
P_C	Collector Power Dissipation	1	W
T_J, T_{STG}	Operating and Storage Junction Temperature Range	-55 ~ 150	°C

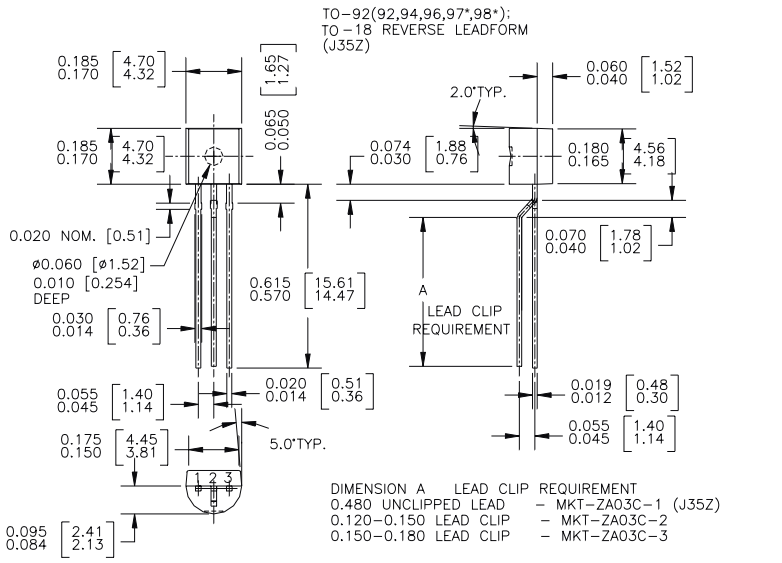
• PW=5ms, Duty Cycle=10%

Electrical Characteristics T_a=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	I_C = 100μA, I_E = 0	100			V
BV_{CEO}	Collector-Emitter Breakdown Voltage	I_C = 10mA, I_B = 0	80			V
BV_{EBO}	Emitter-Base Breakdown Voltage	I_E = 10μA, I_C = 0	5.0			V
I_{CBO}	Collector Cut-off Current	V_{CB} = 30V, I_E = 0			100	nA
I_{EBO}	Emitter Cut-off Current	V_{EB} = 5V, I_C = 0			10	μA
h_{FE1} h_{FE2} h_{FE3}	DC Current Gain	V_{CE} = 2V, I_C = 5mA V_{CE} = 2V, I_C = 150mA V_{CE} = 2V, I_C = 500mA	25 100 25		250	
V_{CE}(sat)	Collector-Emitter Saturation Voltage	I_C = 500mA, I_B = 50mA			0.5	V
V_{BE}(on)	Base-Emitter On Voltage	V_{CE} = 2V, I_C = 500mA			1	V
f_T	Current Gain Bandwidth Product	V_{CE} = 5V, I_C=10mA, f = 50MHz		100		MHz

Package Dimensions

TO-92



Note: All package 97 or 98 transistors are leadformed to this configuration prior to bulk shipment. Order L34Z option if in-line leads are preferred on package 97 or 98.

***** Standard Option on 97 & 98 package code

Dimensions in Millimeters

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CROSSVOLT™	FRFET™	MicroPak™	QFET™	SuperSOT™-8
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Programmable Active Droop™		OPTOPLANAR™	SMART START™	

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