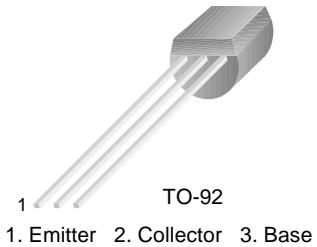


BC63916

Switching and Amplifier Applications



NPN Epitaxial Silicon Transistor

Absolute Maximum Ratings $T_a=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
V_{CER}	Collector-Emitter Voltage at $R_{BE}=1\text{K}\Omega$	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	$^\circ\text{C}$

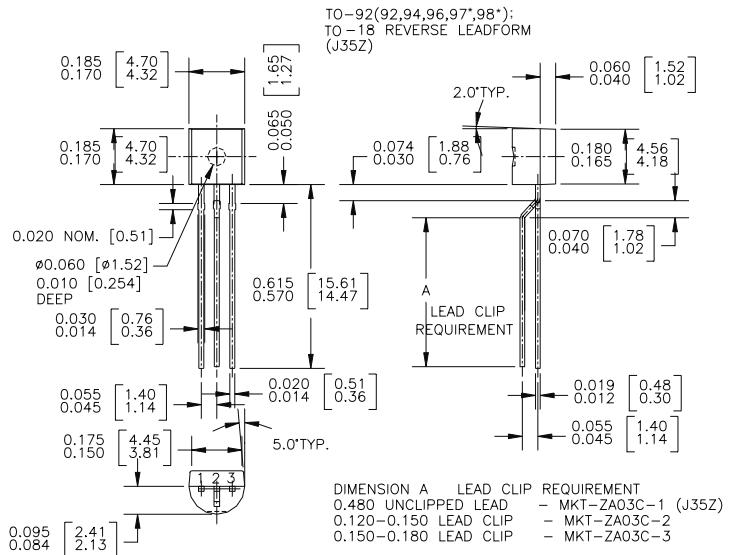
• PW=5ms, Duty Cycle=10%

Electrical Characteristics $T_a=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	$I_C = 100\mu\text{A}, I_E = 0$	100			V
BV_{CEO}	Collector-Emitter Breakdown Voltage	$I_C = 10\text{mA}, I_B = 0$	80			V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E = 10\mu\text{A}, I_C = 0$	5.0			V
I_{CBO}	Collector Cut-off Current	$V_{CB} = 30\text{V}, I_E = 0$			100	nA
I_{EBO}	Emitter Cut-off Current	$V_{EB} = 5\text{V}, I_C = 0$			10	μA
h_{FE1} h_{FE2} h_{FE3}	DC Current Gain	$V_{CE} = 2\text{V}, I_C = 5\text{mA}$ $V_{CE} = 2\text{V}, I_C = 150\text{mA}$ $V_{CE} = 2\text{V}, I_C = 500\text{mA}$	25 100 25		250	
$V_{CE(\text{sat})}$	Collector-Emitter Saturation Voltage	$I_C = 500\text{mA}, I_B = 50\text{mA}$			0.5	V
$V_{BE(\text{on})}$	Base-Emitter On Voltage	$V_{CE} = 2\text{V}, I_C = 500\text{mA}$			1	V
f_T	Current Gain Bandwidth Product	$V_{CE} = 5\text{V}, I_C = 10\text{mA}$, $f = 50\text{MHz}$		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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CoolFET™	FASTr™	MicroFET™	PowerTrench®	SuperSOT™-6
CROSSVOLT™	FRFET™	MicroPak™	QFET™	SuperSOT™-8
DOME™	GlobalOptoisolator™	MICROWIRE™	QS™	SyncFET™
EcoSPARK™	GTO™	MSX™	QT Optoelectronics™	TinyLogic®
E ² CMOS™	HiSeC™	MSXPro™	Quiet Series™	TruTranslation™
EnSigna™	I ² C™	OCX™	RapidConfigure™	UHC™
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The Power Franchise™		OPTOLOGIC®	SILENT SWITCHER®	VCX™
Programmable Active Droop™		OPTOPLANAR™	SMART START™	

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2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

PRODUCT STATUS DEFINITIONS

Definition of Terms

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