BC635_L34Z Datasheet

DiGi Electronics Part Number	BC635_L34Z-DG
Manufacturer	onsemi
Manufacturer Product Number	BC635_L34Z
Description	TRANS NPN 45V 1A TO92-3
Detailed Description	Bipolar (BJT) Transistor NPN 45 V 1 A 100MHz 1 W T hrough Hole TO-92-3

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Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
BC635_L34Z	onsemi
Series:	Product Status:
-	Obsolete
Transistor Type:	Current - Collector (Ic) (Max):
NPN	1 A
Voltage - Collector Emitter Breakdown (Max):	Vce Saturation (Max) @ Ib, Ic:
45 V	500mV @ 50mA, 500mA
Current - Collector Cutoff (Max):	DC Current Gain (hFE) (Min) @ Ic, Vce:
100nA (ICBO)	40 @ 150mA, 2V
Power - Max:	Frequency - Transition:
1 W	100MHz
Operating Temperature:	Mounting Type:
150°C (TJ)	Through Hole
Package / Case:	Supplier Device Package:
TO-226-3, TO-92-3 (TO-226AA)	TO-92-3
Base Product Number:	
BC635	

Environmental & Export classification

Moisture Sensitivity Level (MSL):	REACH Status:
1 (Unlimited)	REACH Unaffected
ECCN:	HTSUS:
EAR99	8541.29.0075

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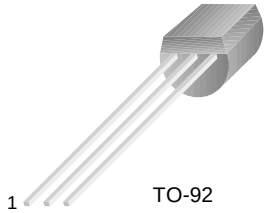
SEMICONDUCTOR®

BC635/637/639

Switching and Amplifier Applications

- Complement to BC636/638/640



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		
	: BC635	45	V
	: BC637	60	V
	: BC639	100	V
V_{CES}	Collector-Emitter Voltage		
	: BC635	45	V
	: BC637	60	V
	: BC639	100	V
V_{CEO}	Collector-Emitter Voltage		
	: BC635	45	V
	: BC637	60	V
	: BC639	80	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	1	A
I_{CP}	Peak Collector Current	1.5	A
I_B	Base Current	100	mA
P_C	Collector Power Dissipation	1	W
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	-65 ~ 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_{CEO}	Collector-Emitter Breakdown Voltage	I_C=10mA, I_B=0				
	: BC635		45			V
	: BC637		60			V
	: BC639		80			V
I_{CBO}	Collector Cut-off Current	V_{CB}=30V, I_E=0			0.1	μA
I_{EBO}	Emitter Cut-off Current	V_{EB}=5V, I_C=0			0.1	μA
h_{FE1}	DC Current Gain : All	V_{CE}=2V, I_C=5mA	25			
h_{FE2}	: BC635	V_{CE}=2V, I_C=150mA	40		250	
	: BC637/BC639		40		160	
h_{FE3}	: All	V_{CE}=2V, I_C=500mA	25			
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

Typical Characteristics

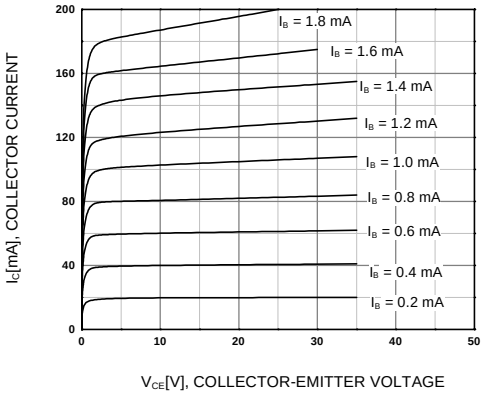


Figure 1. Static Characteristic

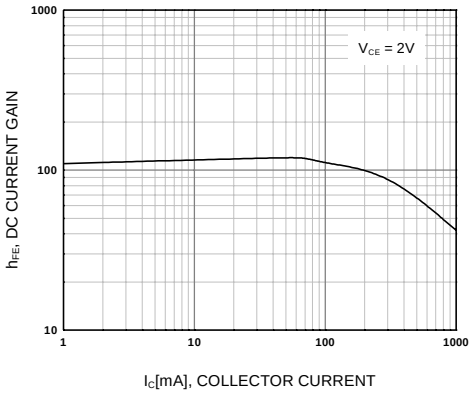


Figure 2. DC current Gain

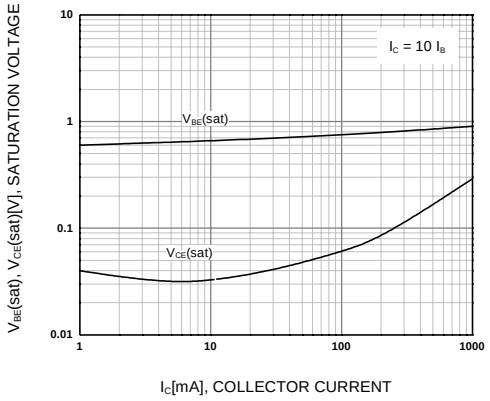


Figure 3. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

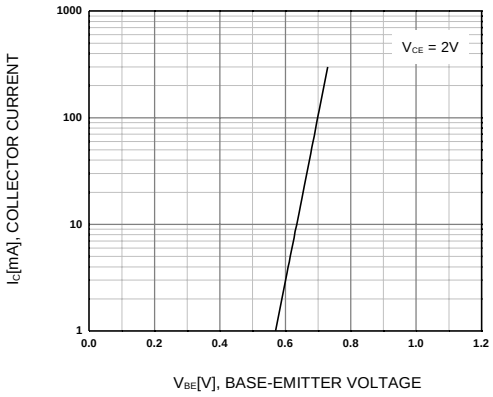


Figure 4. Base-Emitter On Voltage

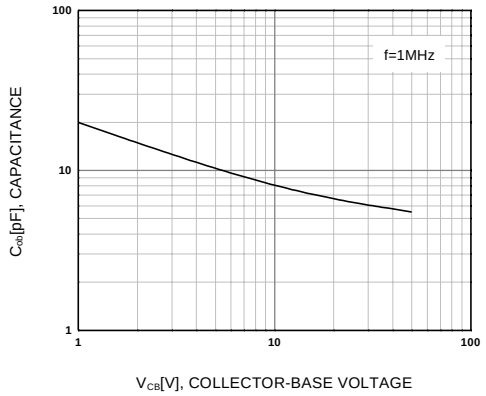
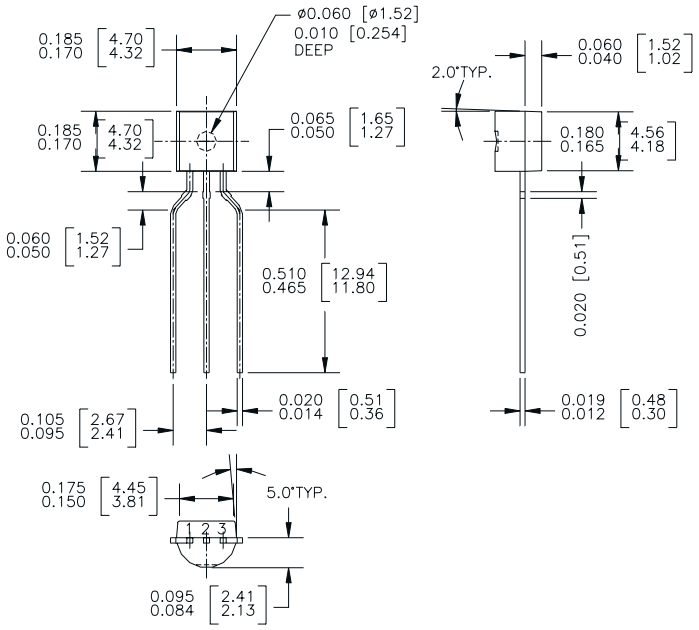


Figure 5. Collector Output Capacitance

Package Dimensions

TO-92



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™
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EnSigna™	I^2C™	OCX™	RapidConfigure™	UHC™
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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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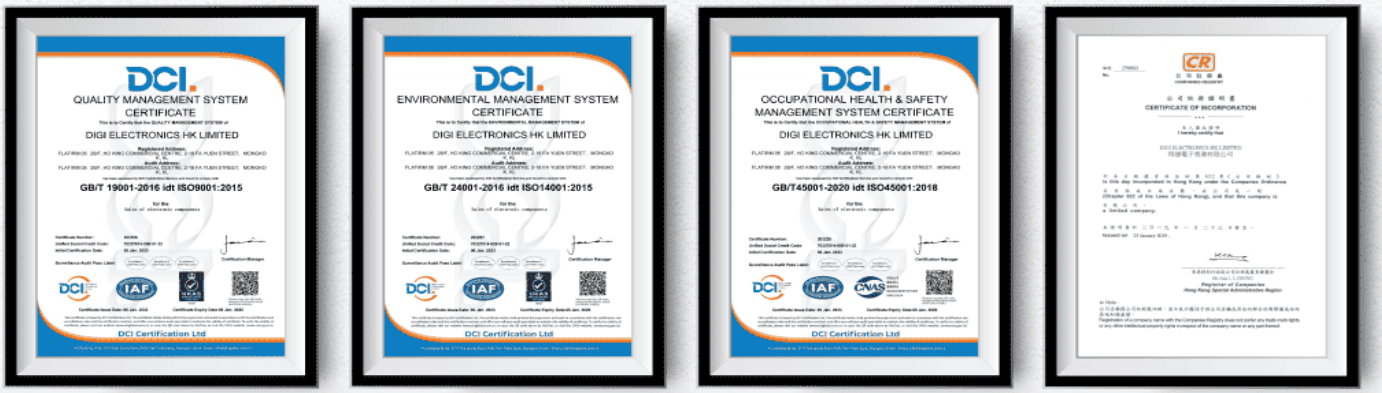

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