

KSA733YBU Datasheet

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DiGi Electronics Part Number	KSA733YBU-DG
Manufacturer	onsemi
Manufacturer Product Number	KSA733YBU
Description	TRANS PNP 50V 0.15A TO92-3
Detailed Description	Bipolar (BJT) Transistor PNP 50 V 150 mA 180MHz 2 50 mW Through Hole TO-92-3



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Purchase and inquiry

Manufacturer Product Number:

KSA733YBU

Series:

-

Transistor Type:

PNP

Voltage - Collector Emitter Breakdown (Max):

50 V

Current - Collector Cutoff (Max):

100nA (ICBO)

Power - Max:

250 mW

Operating Temperature:

150°C (TJ)

Package / Case:

TO-226-3, TO-92-3 (TO-226AA)

Base Product Number:

KSA733

Manufacturer:

onsemi

Product Status:

Obsolete

Current - Collector (Ic) (Max):

150 mA

Vce Saturation (Max) @ Ib, Ic:

300mV @ 10mA, 100mA

DC Current Gain (hFE) (Min) @ Ic, Vce:

120 @ 1mA, 6V

Frequency - Transition:

180MHz

Mounting Type:

Through Hole

Supplier Device Package:

TO-92-3

Environmental & Export classification

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99

REACH Status:

REACH Unaffected

HTSUS:

8541.21.0075



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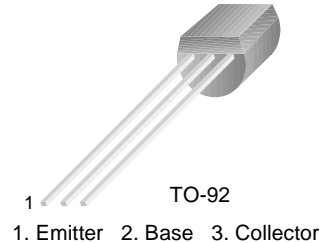
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KSA733

Low Frequency Amplifier

- Collector-Base Voltage : $V_{CBO} = -60V$
- Complement to KSC945
- Suffix “-C” means Center Collector (1. Emitter 2. Collector 3. Base)



PNP Epitaxial Silicon Transistor

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

Symbol	Parameter	Ratings	Units
V_{CBO}	Collector-Base Voltage	-60	V
V_{CEO}	Collector-Emitter Voltage	-50	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-150	mA
P_C	Collector Power Dissipation	250	mW
T_J	Junction Temperature	150	$^\circ C$
T_{STG}	Storage Temperature	-55 ~ 150	$^\circ C$

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

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	$I_C = -100\mu A, I_E = 0$	-60			V
BV_{CEO}	Collector-Emitter Breakdown Voltage	$I_C = -10mA, I_B = 0$	-50			V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E = -10\mu A, I_C = 0$	-5			V
I_{CBO}	Collector Cut-off Current	$V_{CB} = -60V, I_E = 0$			-100	nA
I_{EBO}	Emitter Cut-off Current	$V_{EB} = -5V, I_C = 0$			-100	nA
h_{FE}	DC Current Gain	$V_{CE} = -6V, I_C = -1mA$	40		700	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -100mA, I_B = -10mA$		-0.18	-0.3	V
$V_{BE(on)}$	Base-Emitter On Voltage	$V_{CE} = -6V, I_C = -1mA$	-0.50	-0.62	-0.80	V
f_T	Current Gain Bandwidth Product	$V_{CE} = -6V, I_C = -10mA$	50	180		MHz
C_{ob}	Output Capacitance	$V_{CB} = -10V, I_E = 0, f = 1MHz$		2.8		pF
NF	Noise Figure	$V_{CE} = -6V, I_C = -0.3mA, f = 1MHz, R_s = 10k\Omega$		6.0	20	dB

h_{FE} Classification

Classification	R	O	Y	G	L
h_{FE}	40 ~ 80	70 ~ 140	120 ~ 240	200 ~ 400	350 ~ 700

Typical Characteristics

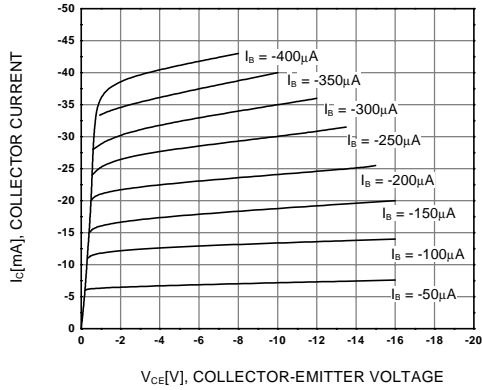


Figure 1. Static Characteristic

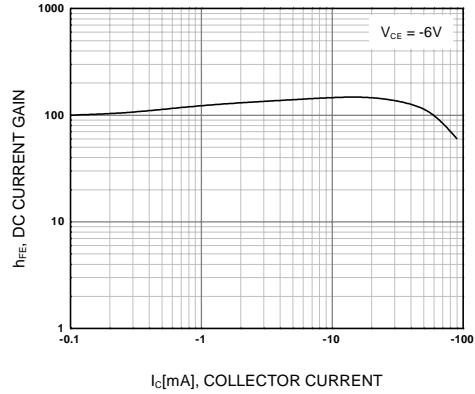


Figure 2. DC current Gain

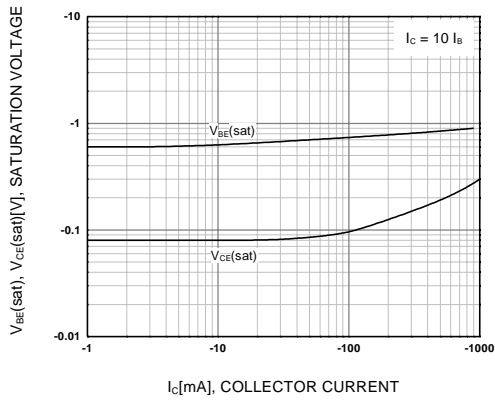


Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

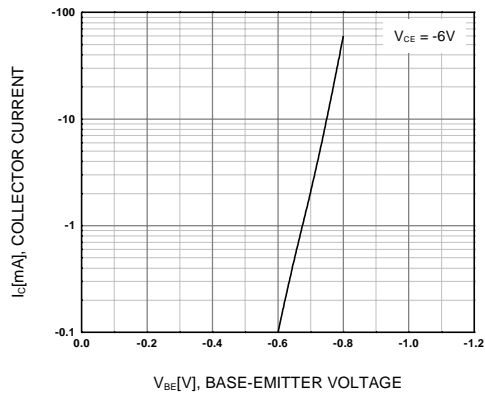


Figure 4. Base-Emitter On Voltage

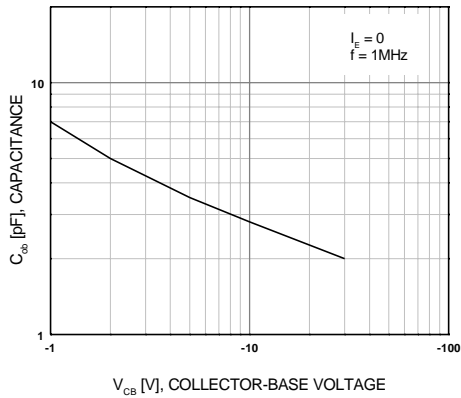


Figure 5. Collector Output Capacitance

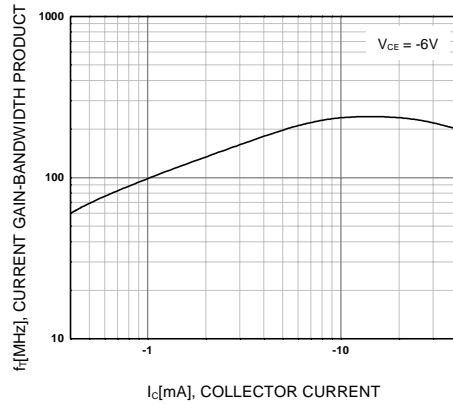
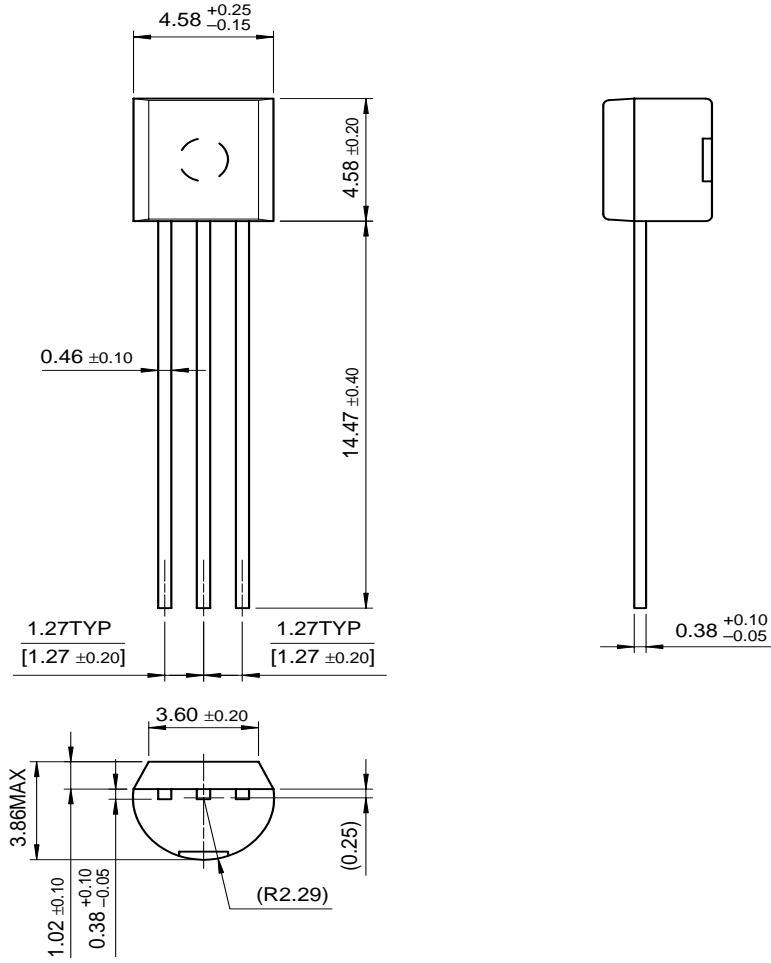


Figure 6. Current Gain Bandwidth Product

Package Dimensions

TO-92



Dimensions in Millimeters

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