

KSC2330YBU Datasheet

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DiGi Electronics Part Number	KSC2330YBU-DG
Manufacturer	onsemi
Manufacturer Product Number	KSC2330YBU
Description	TRANS NPN 300V 0.1A TO92-3
Detailed Description	Bipolar (BJT) Transistor NPN 300 V 100 mA 50MHz 1 W Through Hole TO-92-3



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Purchase and inquiry

Manufacturer Product Number:

KSC2330YBU

Series:

-

Transistor Type:

NPN

Voltage - Collector Emitter Breakdown (Max):

300 V

Current - Collector Cutoff (Max):

100nA (ICBO)

Power - Max:

1 W

Operating Temperature:

150°C (TJ)

Package / Case:

TO-226-3, TO-92-3 Long Body

Base Product Number:

KSC2330

Manufacturer:

onsemi

Product Status:

Obsolete

Current - Collector (Ic) (Max):

100 mA

Vce Saturation (Max) @ Ib, Ic:

500mV @ 1mA, 10mA

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

120 @ 20mA, 10V

Frequency - Transition:

50MHz

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:

8541.29.0075

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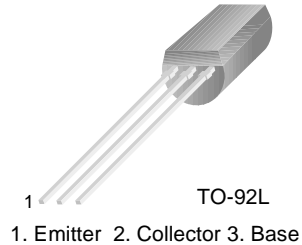
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KSC2330

Color TV Chroma Output

- Collector-Base Voltage : $V_{CBO}=300V$
- Current Gain Bandwidth Product : $f_T=50MHz$ (TYP.)



NPN Epitaxial Silicon Transistor

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

Symbol	Parameter	Ratings	Units
V_{CBO}	Collector-Base Voltage	300	V
V_{CEO}	Collector-Emitter Voltage	300	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current	100	mA
P_C	Collector Power Dissipation	1	W
T_J	Junction Temperature	150	$^\circ C$
T_{STG}	Storage Temperature	-55 ~ +150	$^\circ C$

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

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	$I_C=100\mu A, I_E=0$	300			V
BV_{CEO}	Collector-Emitter Breakdown Voltage	$I_C=5mA, I_B=0$	300			V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E=100\mu A, I_C=0$	7			V
I_{CBO}	Collector Cut-off Current	$V_{CB}=200V, I_E=0$			0.1	μA
h_{FE}	DC Current Gain	$V_{CE}=10V, I_C=20mA$	40		240	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=10mA, I_B=1mA$			0.5	V
f_T	Current Gain Bandwidth Product	$V_{CE}=30V, I_C=10mA$		50		MHz
C_{ob}	Output Capacitance	$V_{CB}=10V, I_E=0, f=1MHz$		4		pF

h_{FE} Classification

Classification	R	O	Y
h_{FE}	40 ~ 80	70 ~ 140	120 ~ 240

Typical Characteristics

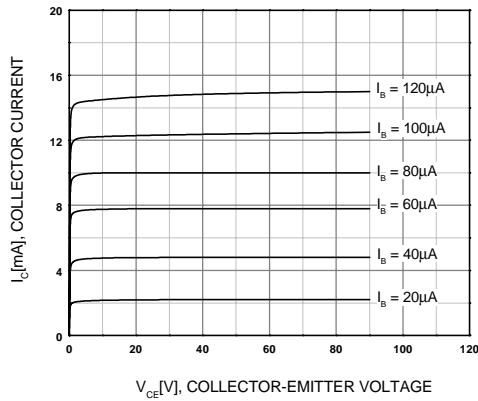


Figure 1. Static Characteristic

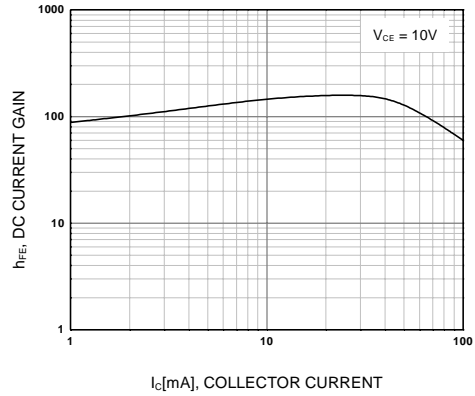


Figure 2. DC current Gain

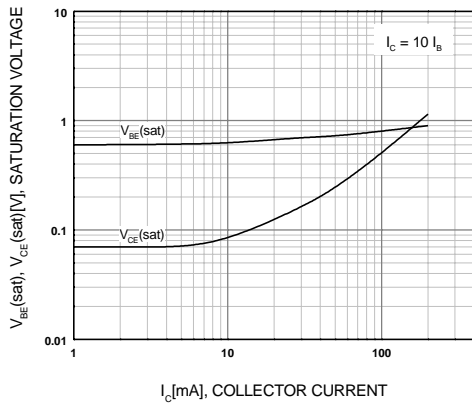


Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

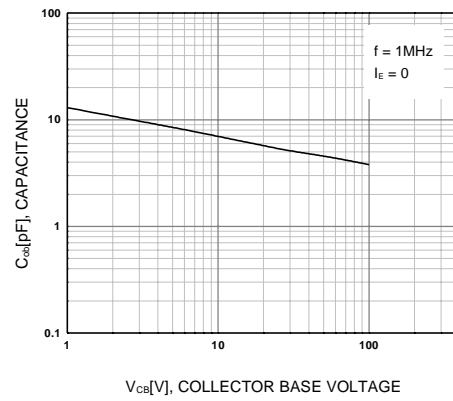


Figure 4. Collector Output Capacitance

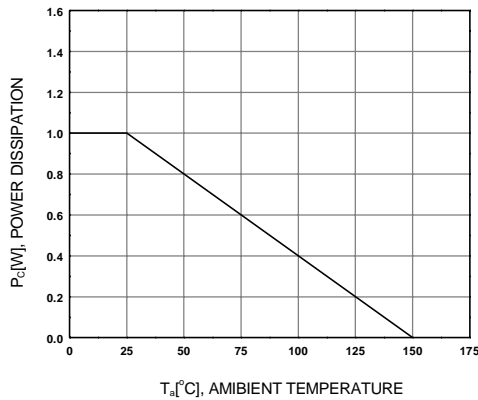
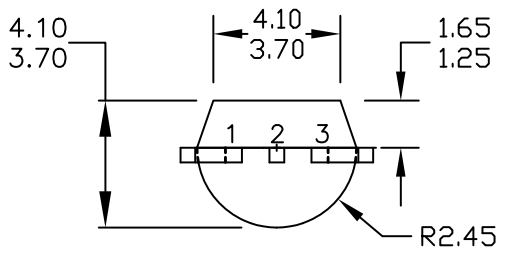
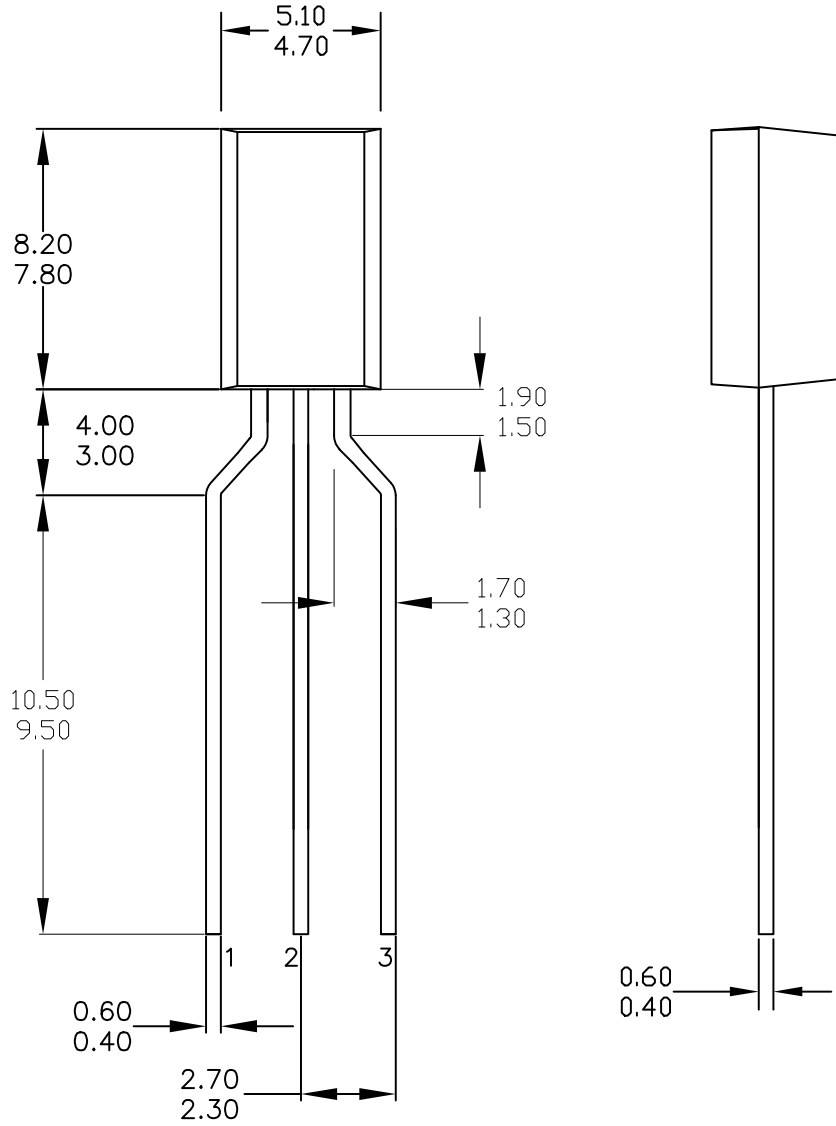


Figure 5. Power Derating

Package Dimensions

TO-92 3 8.0x4.9 (LEADFORMED)
 CASE 135AM
 ISSUE A



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Dimensions in Millimeters

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