



**THE DATASHEET OF
KSC2330OTA**



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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

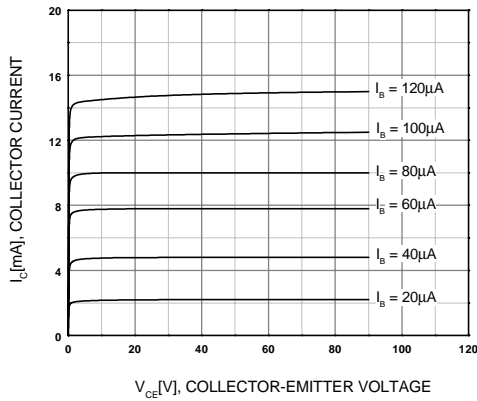


Figure 1. Static Characteristic

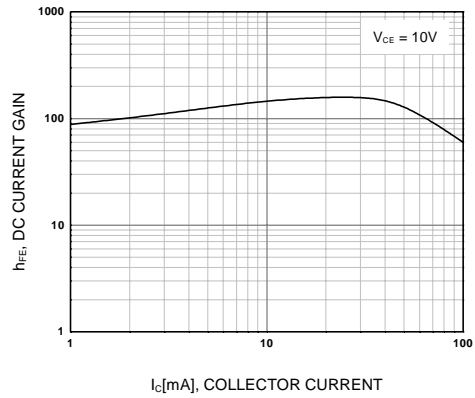


Figure 2. DC current Gain

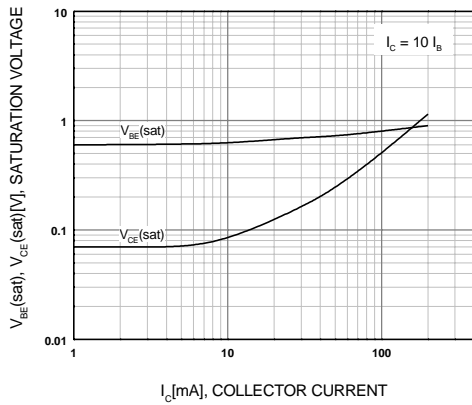


Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

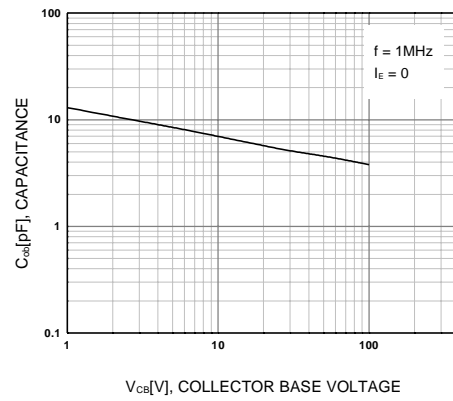


Figure 4. Collector Output Capacitance

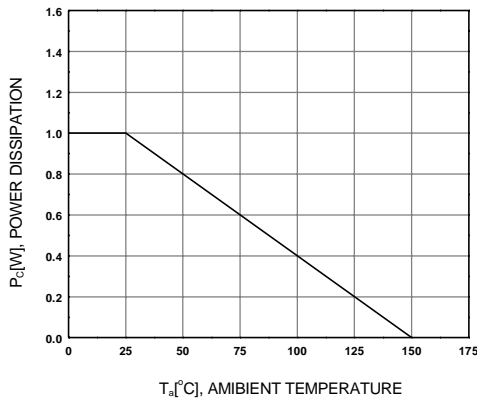
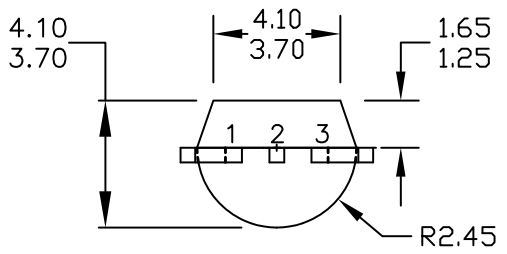
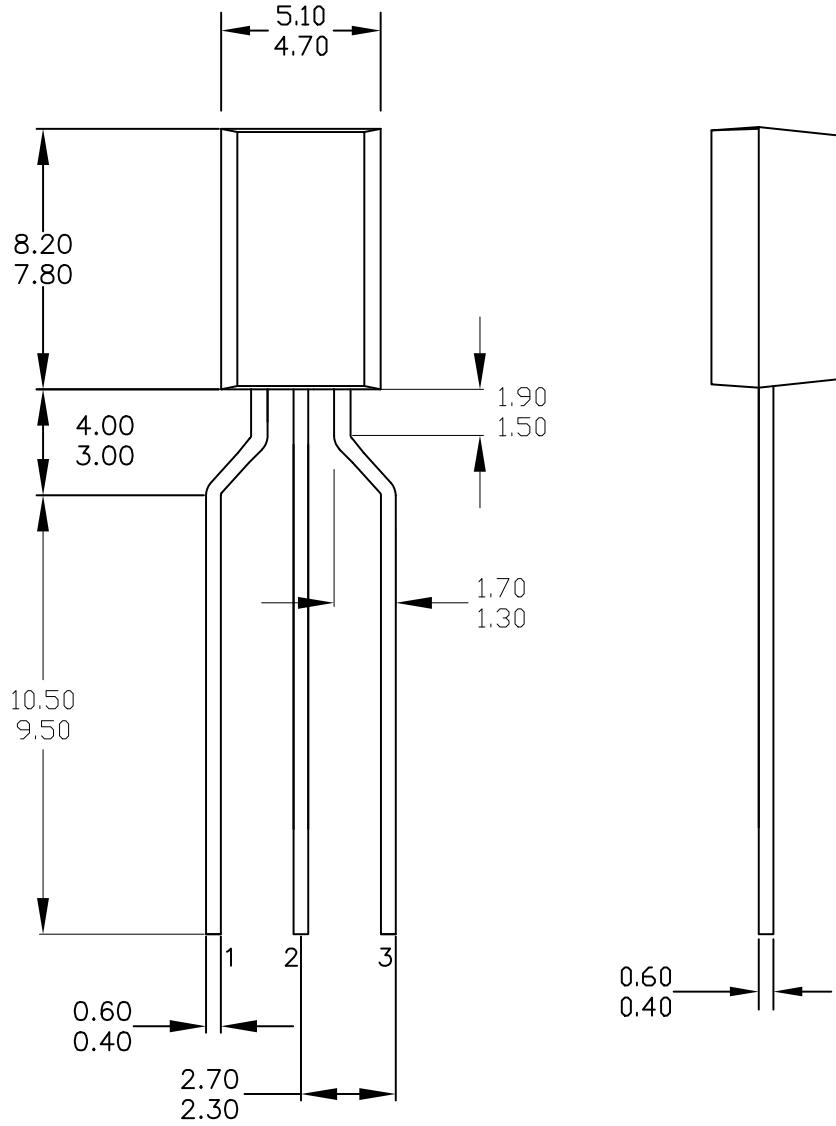


Figure 5. Power Derating

Package Dimensions

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



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Dimensions in Millimeters

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