

PNP Epitaxial Silicon Transistor

KSA708

Low Frequency Amplifier & Medium Speed Switching

- Complement to KSC1008
- Collector-Base Voltage: $V_{CBO} = -80\text{ V}$
- Collector Power Dissipation: $P_C = 800\text{ mW}$
- Suffix “-C” means Center Collector
(1. Emitter 2. Collector 3. Base)

ABSOLUTE MAXIMUM RATINGS

($T_A = 25^\circ\text{C}$ unless otherwise noted.)

Symbol	Parameter	Ratings	Unit
V_{CBO}	Collector-Base Voltage	-80	V
V_{CEO}	Collector-Emitter Voltage	-60	V
V_{EBO}	Emitter-Base Voltage	-8	V
I_C	Collector Current	-700	mA
P_C	Collector Power Dissipation	800	mW
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{STG}	Storage Temperature	-55 to +150	$^\circ\text{C}$

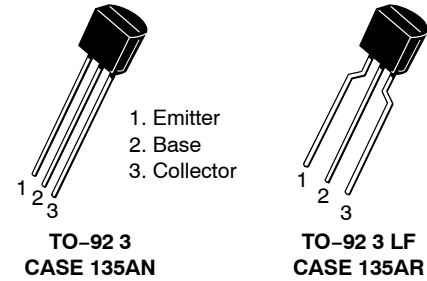
Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted.)

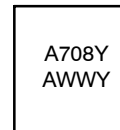
Symbol	Parameter	Conditions	Min	Typ	Max	Unit
BV_{CBO}	Collector-Base Breakdown Voltage	$I_C = -100\ \mu\text{A}$, $I_E = 0$	-80	-	-	V
BV_{CEO}	Collector-Emitter Breakdown Voltage	$I_C = -10\text{ mA}$, $I_B = 0$	-60	-	-	V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E = -100\ \mu\text{A}$, $I_C = 0$	-8	-	-	V
I_{CBO}	Collector Cut-off Current	$V_{CB} = -60\text{ V}$, $I_E = 0$	-	-	-0.1	μA
I_{EBO}	Emitter Cut-off Current	$V_{EB} = -5\text{ V}$, $I_C = 0$	-	-	-0.1	μA
h_{FE}	DC Current Gain*	$V_{CE} = -2\text{ V}$, $I_C = -50\text{ mA}$	120	-	240	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage*	$I_C = -500\text{ mA}$, $I_B = -50\text{ mA}$	-	-0.3	-0.7	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage*	$I_C = -500\text{ mA}$, $I_B = -50\text{ mA}$	-	-0.9	1.1	V
f_T	Current Gain Bandwidth Product	$V_{CE} = -10\text{ V}$, $I_C = -50\text{ mA}$	-	50	-	MHz
C_{ob}	Output Capacitance	$V_{CB} = -10\text{ V}$, $I_E = 0$, $f = 1\text{ MHz}$	-	13	-	pF

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

*Pulse Test: $PW \leq 350\ \mu\text{s}$, Duty cycle $\leq 2\%$.



MARKING DIAGRAM



A708Y = Specific Device Code
A = Assembly Site
WW = Work Week
Y = Year of Production

ORDERING INFORMATION

Device	Package	Shipping
KSA708YBU	TO-92 3 (Pb-Free)	10000 Units / Bulk
KSA708CYTA	TO-92 3 LF (Pb-Free)	2000 Units / FNFLD
KSA708YTA	TO-92 3 LF (Pb-Free)	2000 Units / FNFLD

TYPICAL CHARACTERISTICS

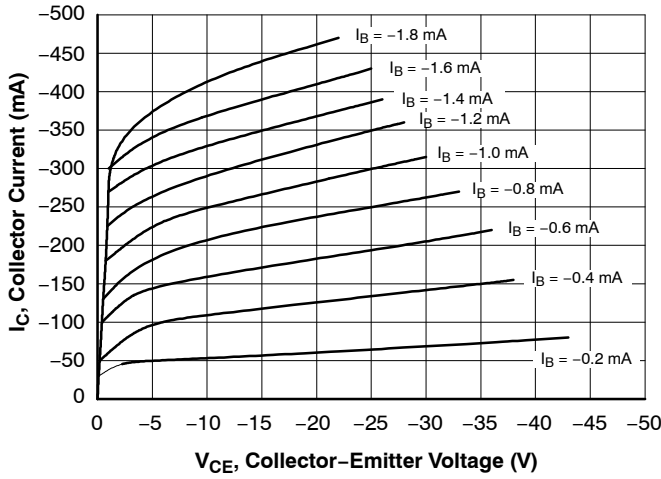


Figure 1. Static Characteristic

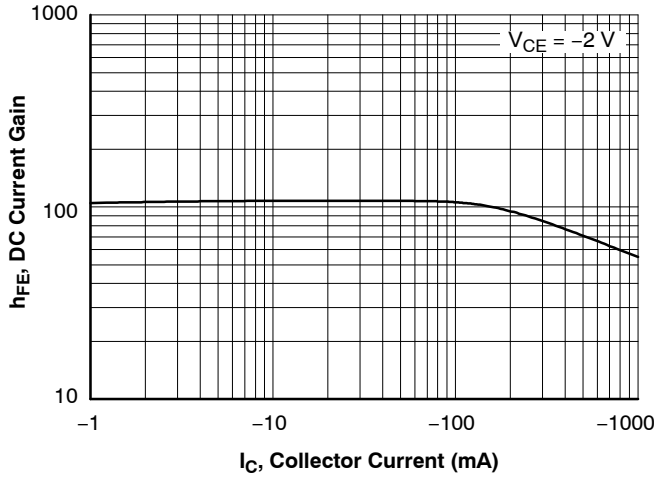


Figure 2. DC Current Gain

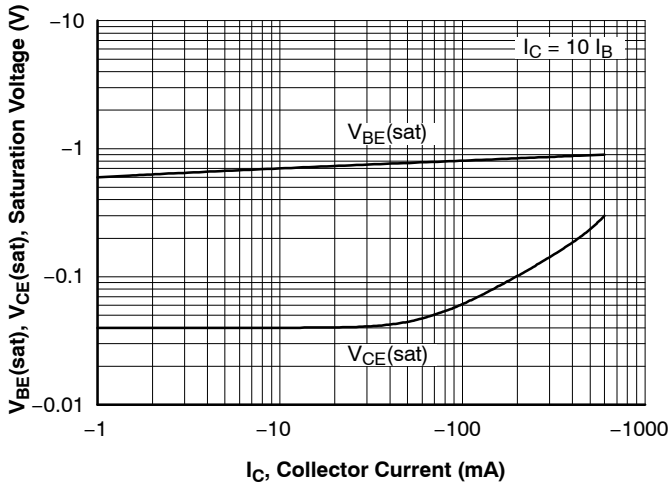


Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

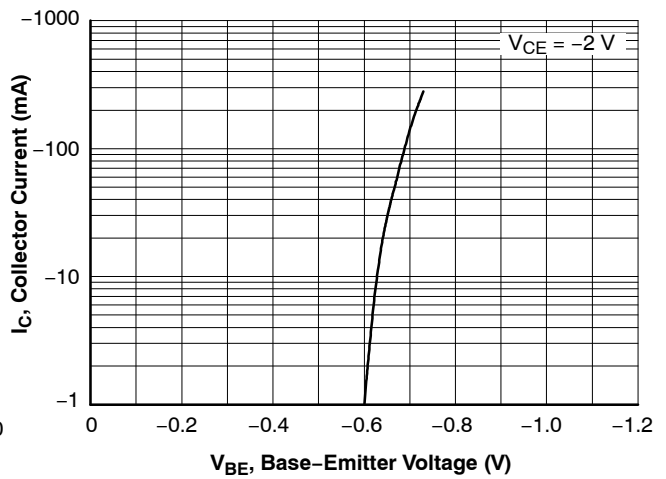


Figure 4. Base-Emitter On Voltage

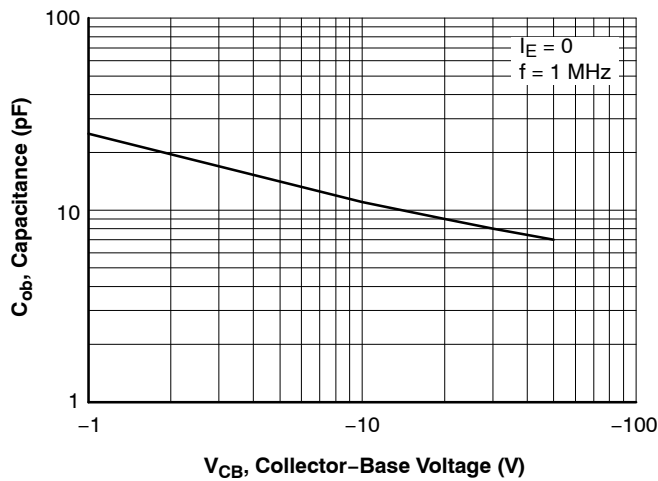
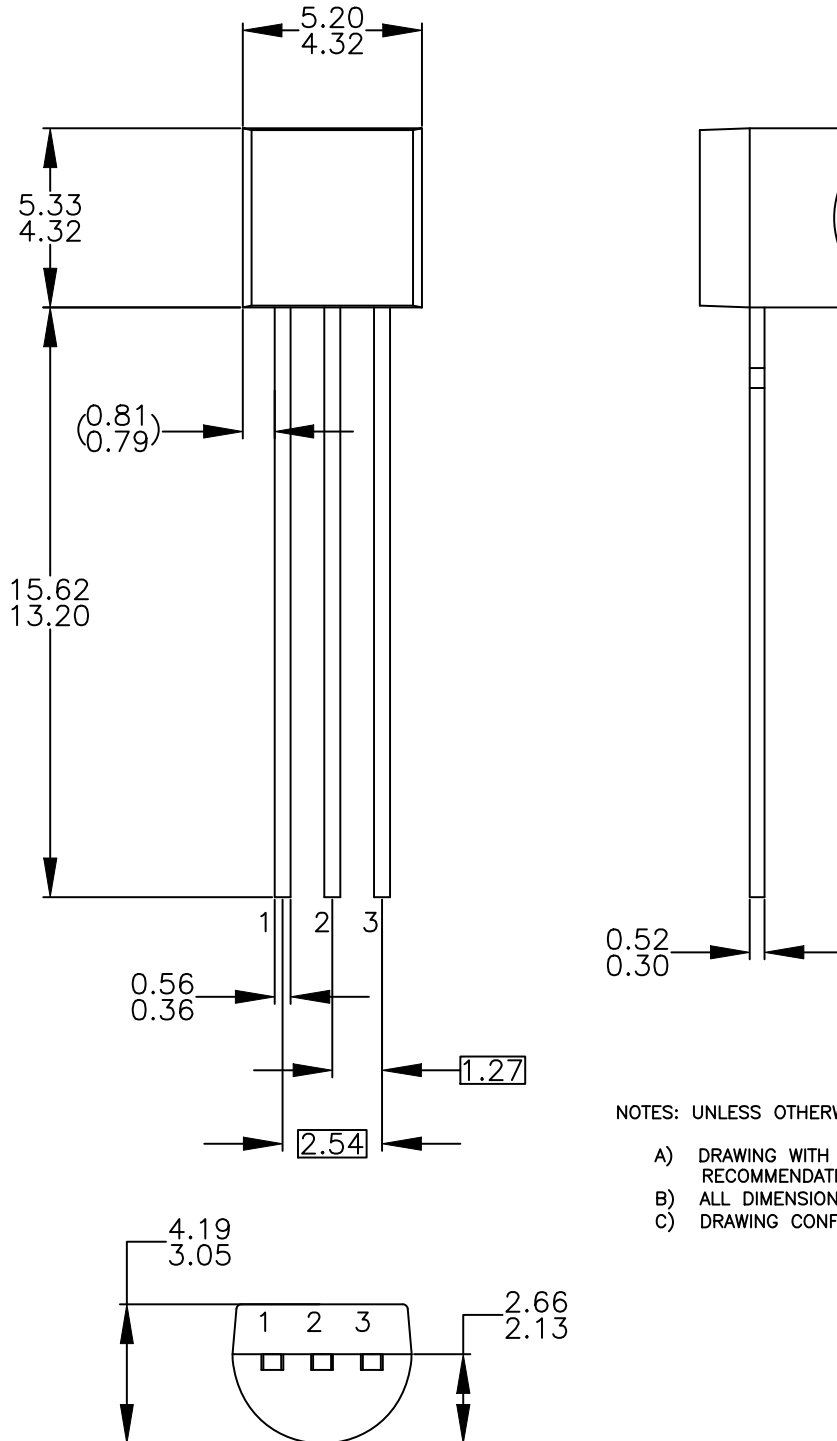


Figure 5. Collector Output Capacitance

MECHANICAL CASE OUTLINE
PACKAGE DIMENSIONS

TO-92 3 4.825x4.76
CASE 135AN
ISSUE O

DATE 31 JUL 2016



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