

## KSD261

### Low Frequency Power Amplifier

- Complement to KSA643
- Collector Power Dissipation :  $P_C=500\text{mW}$
- Suffix "-C" means Center Collector (1. Emitter 2. Collector 3. Base)



### NPN Epitaxial Silicon Transistor

#### Absolute Maximum Ratings $T_a=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Ratings	Units
$V_{CBO}$	Collector-Base Voltage	40	V
$V_{CEO}$	Collector-Emitter Voltage	20	V
$V_{EBO}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current	500	mA
$P_C$	Collector Power Dissipation	500	mW
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{STG}$	Storage Temperature	-55 ~ 150	$^\circ\text{C}$

#### Electrical Characteristics $T_a=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
$BV_{CBO}$	Collector-Base Breakdown Voltage	$I_C=100\mu\text{A}$ , $I_E=0$	40			V
$BV_{CEO}$	Collector-Emitter Breakdown Voltage	$I_C=10\text{mA}$ , $I_B=0$	20			V
$BV_{EBO}$	Emitter-Base Breakdown Voltage	$I_E=100\mu\text{A}$ , $I_C=0$	5			V
$I_{CBO}$	Collector Cut-off Current	$V_{CB}=25\text{V}$ , $I_E=0$			0.1	$\mu\text{A}$
$I_{EBO}$	Emitter Cut-off Current	$V_{EB}=3\text{V}$ , $I_C=0$			0.1	$\mu\text{A}$
$h_{FE}$	DC Current Gain	$V_{CE}=1\text{V}$ , $I_C=0.1\text{A}$	40		400	
$V_{CE}(\text{sat})$	Collector-Emitter Saturation Voltage	$I_C=0.5\text{A}$ , $I_B=50\text{mA}$		0.18	0.4	V

### $h_{FE}$ Classification

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

# Typical Characteristics

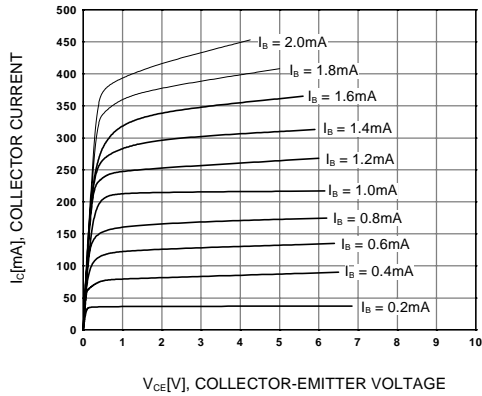


Figure 1. Static Characteristic

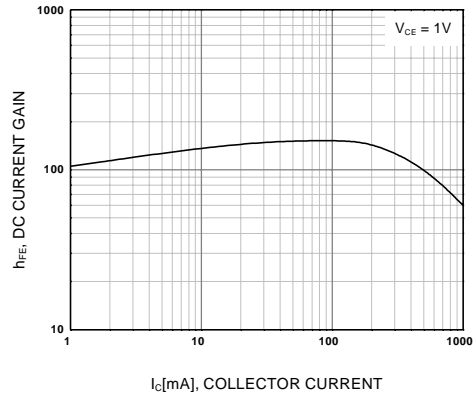


Figure 2. DC current Gain

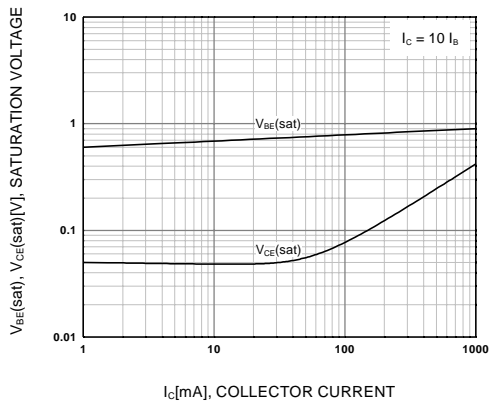


Figure 3. Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage

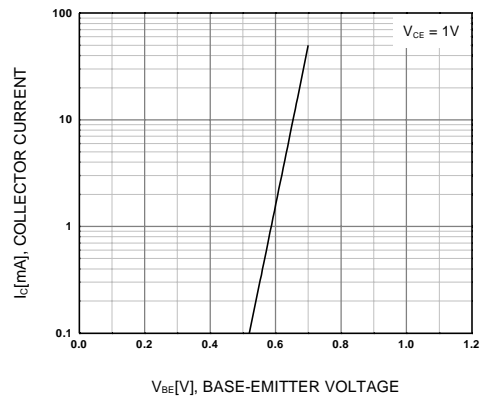


Figure 4. Base-Emitter On Voltage

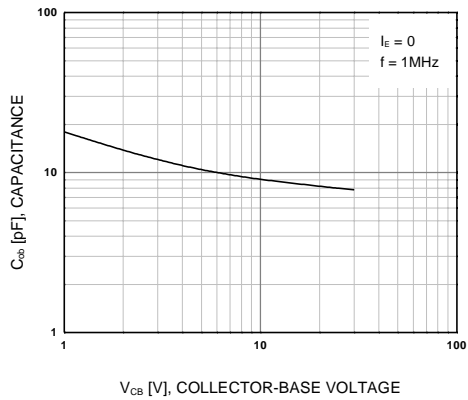


Figure 5. Collector Output Capacitance

# Package Dimensions

KSD261

## TO-92



Dimensions in Millimeters

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