

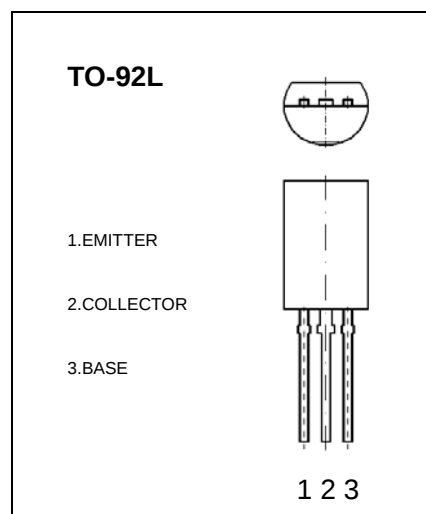


TO-92L Plastic-Encapsulate Transistors

KSA928A TRANSISTOR (PNP)

FEATURE

- Audio power amplifier
- Complement to Application



MAXIMUM RATINGS* $T_A=25^{\circ}\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-30	V
V_{CEO}	Collector-Emitter Voltage	-30	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-2	A
P_C	Collector Dissipation	1	W
T_J, T_{stg}	Junction and Storage Temperature	-55 to +150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYPE	MAX	UNIT
Collector-base breakdown voltage	$V(BR)_{CBO}$	$I_C = -100 \mu A, I_E = 0$	-30			V
Collector-emitter breakdown voltage	$V(BR)_{CEO}$	$I_C = -10 \text{ mA}, I_B = 0$	-30			V
Emitter-base breakdown voltage	$V(BR)_{EBO}$	$I_E = -1 \text{ mA}, I_C = 0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB} = -30 \text{ V}, I_E = 0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5 \text{ V}, I_C = 0$			-0.1	μA
DC current gain	h_{FE}	$V_{CE} = -2 \text{ V}, I_C = -500 \text{ mA}$	100		320	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -1.5 \text{ A}, I_B = -0.03 \text{ A}$			-2	V
Base-emitter voltage	V_{BE}	$I_C = -500 \text{ mA}, V_{CE} = -2 \text{ V}$			-1	V
Transition frequency	f_T	$V_{CE} = -2 \text{ V}, I_C = -500 \text{ mA}$		120		MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		48		pF

CLASSIFICATION OF h_{FE}

Rank	O	Y
Range	100-200	160-320

Typical Characteristics

KSA928A

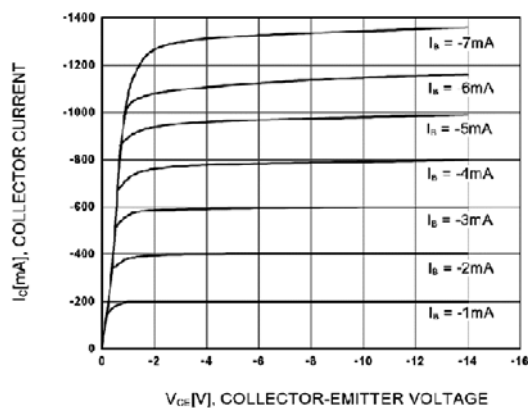


Figure 1. Static Characteristic

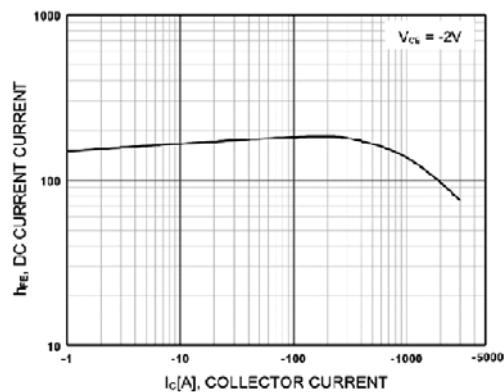


Figure 2. DC current Gain

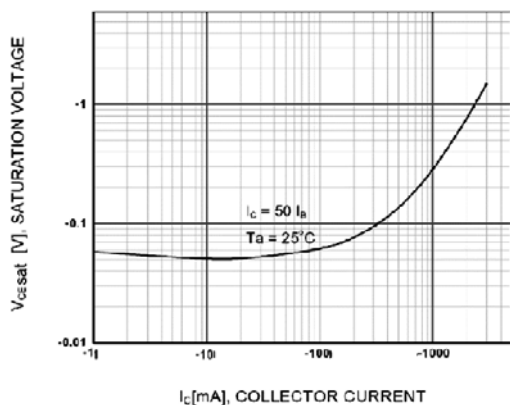


Figure 3. Collector-Emitter Saturation Voltage

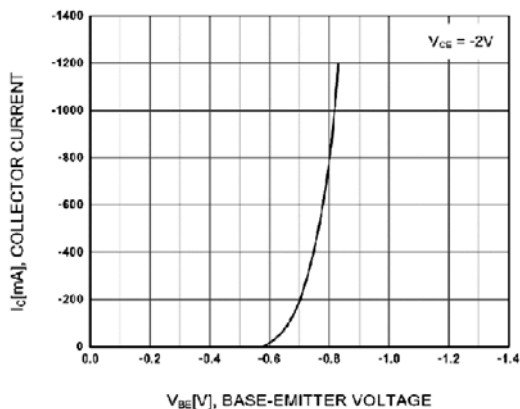


Figure 4. Base-Emitter On Voltage

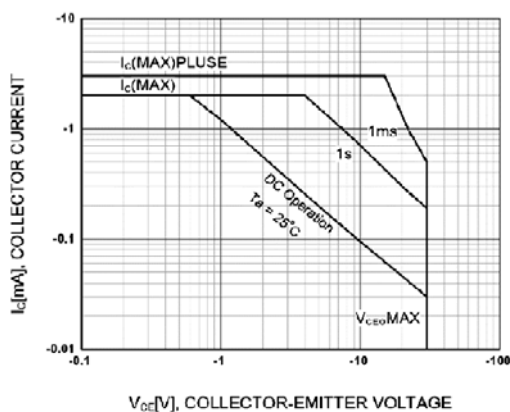


Figure 5. Safe Operating Area

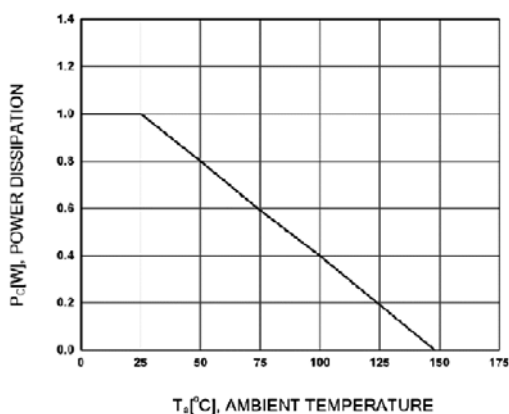


Figure 6. Power Derating