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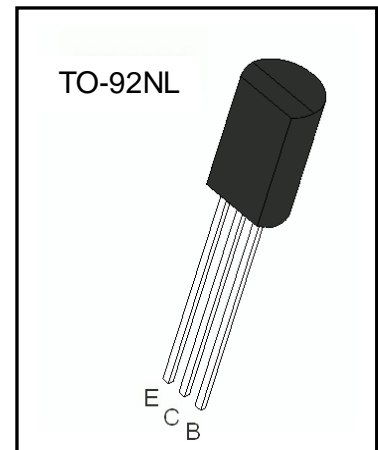
2SD667A NPN TO-92NL Plastic-Encapsulate Transistors

Application

- Low frequency power amplifier
- Complementary pair with 2SB647A

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

Parameter	Symbol	Value	Unit
Collector-Base Voltage	BV_{CBO}	120	V
Collector-Emitter Voltage	BV_{CEO}	100	V
Emitter-Base Voltage	BV_{EBO}	6	V
Collector Current	I_C	1	A
Collector Power Dissipation	P_C	0.9	W
Junction Temperature	T_j	150	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	-55~150	$^{\circ}\text{C}$



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

Parameter	Symbol	Conditions	Value			Unit
			Min	Typ	Max	
Collector-base breakdown voltage	BV_{CBO}	$I_C = 100\mu\text{A}, I_E = 0$	120			V
Collector-emitter breakdown voltage	BV_{CEO}	$I_C = 1\text{mA}, I_B = 0$	100			V
Emitter-base breakdown voltage	BV_{EBO}	$I_E = 100\mu\text{A}, I_C = 0$	6			V
Collector cut-off current	I_{CBO}	$V_{CB} = 120\text{V}, I_E = 0$			1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 6\text{V}, I_C = 0$			1	μA
DC current gain	h_{FE1}	$V_{CE} = 5\text{V}, I_C = 150\text{mA}$	60		320	
	h_{FE2}	$V_{CE} = 5\text{V}, I_C = 500\text{mA}$	30			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 500\text{mA}, I_B = 50\text{mA}$			1.0	V
Base-emitter voltage (on)	$V_{BE(on)}$	$V_{CE} = 5\text{V}, I_C = 150\text{mA}$			1.5	V
Transition frequency	f_T	$V_{CE} = 5\text{V}, I_C = 150\text{mA}$	50			MHz

h_{FE1} Classification

Classification	B	C	D
h_{FE}	60-120	100-200	160-320

Typical Characteristics

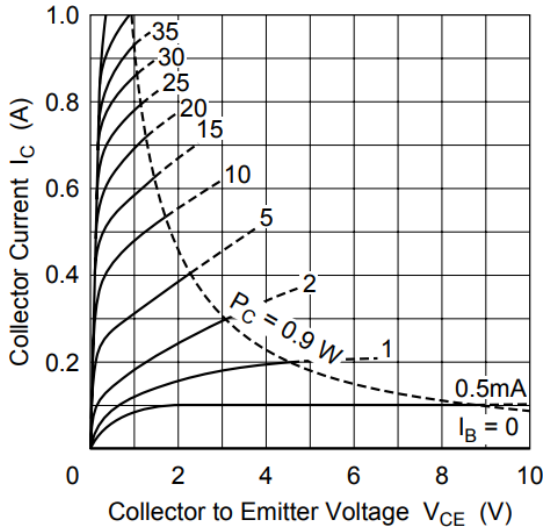


Figure 1. Static Characteristic

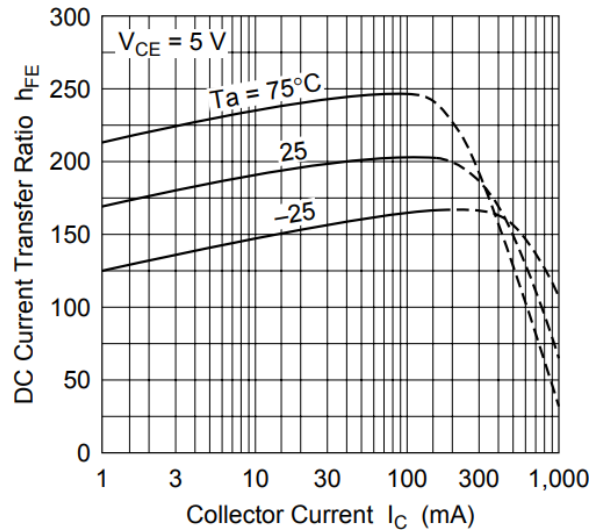
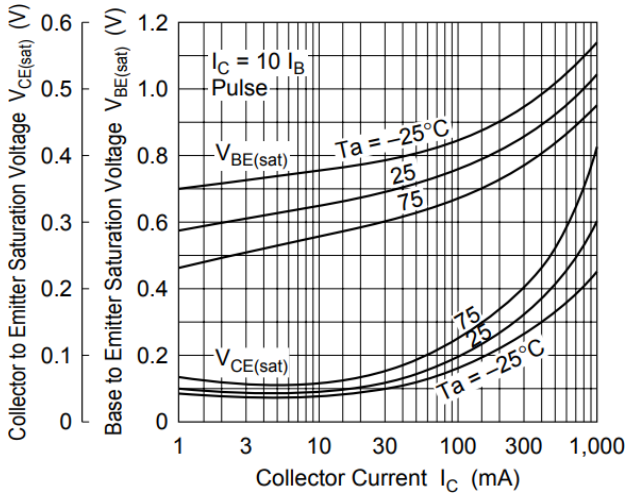


Figure 2. DC current Gain



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

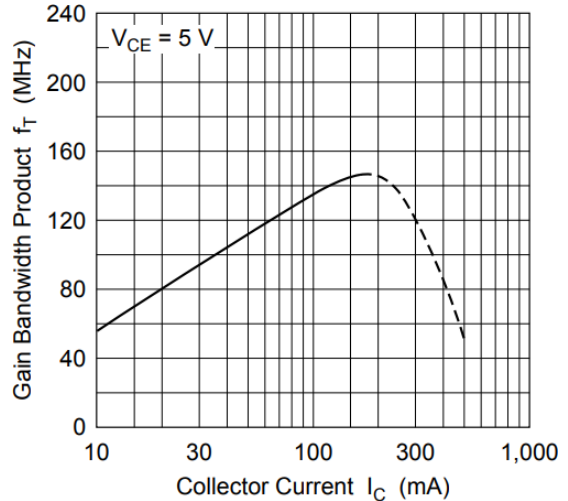


Figure 4. Current Gain Bandwidth Product

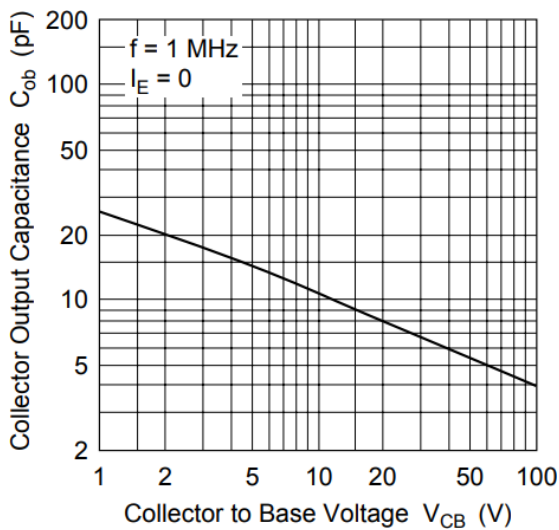


Figure 5. Collector Output Capacitance

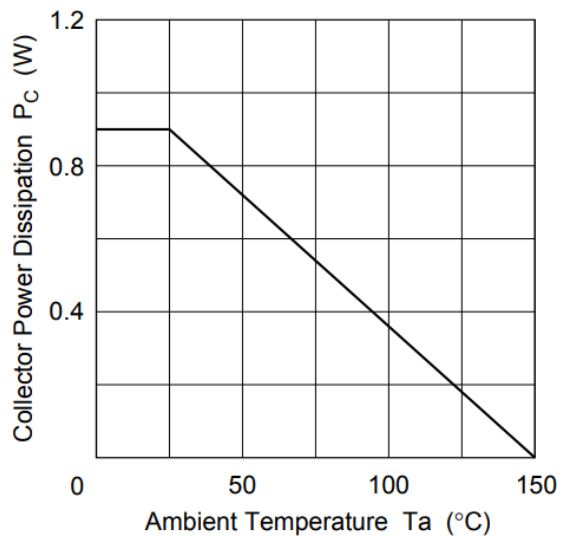


Figure 6. Power Derating

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Package Dimensions (Unit:mm)

