

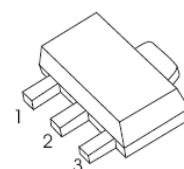
PNP Epitaxial Planar Silicon Transistors

FEATURES

- Complementary to 2SD1005
- Excellent h_{FE} Linearity
- High Collector to Base Voltage
- For Audio Frequency Power Amplifier Application
- Surface Mount device

SOT-89-3L

1. BASE
2. COLLECTOR
3. EMITTER



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

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	-100	V
Collector-Emitter Voltage	V_{CEO}	-80	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-1	A
Collector Current (Pulse)	I_{CM}	-1.5	A
Collector Power Dissipation	P_C	2	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 specified)

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Collector-base breakdown voltage	$V_{(BR)CBO}$	-100			V	$I_C = -100\mu\text{A}$, $I_E = 0$
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	-80			V	$I_C = -1\text{mA}$, $I_B = 0$
Emitter-base breakdown voltage	$V_{(BR)EBO}$	-5			V	$I_E = -100\mu\text{A}$, $I_C = 0$
Collector cut-off current	I_{CBO}			-0.1	μA	$V_{CB} = -100\text{V}$, $I_E = 0$
Emitter cut-off current	I_{EBO}			-0.1	μA	$V_{EB} = -5\text{V}$, $I_C = 0$
DC current gain	h_{FE1}^*	90	200	400		$V_{CE} = -2\text{V}$, $I_C = -100\text{mA}$
	h_{FE2}^*	25	80			$V_{CE} = -2\text{V}$, $I_C = -500\text{mA}$
Collector-emitter saturation voltage	$V_{CE(sat)}^*$		-0.29	-0.5	V	$I_C = -500\text{mA}$, $I_B = -50\text{mA}$
Base-emitter saturation voltage	$V_{BE(sat)}^*$		-0.9	-1.5	V	$I_C = -500\text{mA}$, $I_B = -50\text{mA}$
Base-emitter voltage	V_{BE}^*	-0.6	-0.64	-0.7	V	$V_{CE} = -10\text{V}$, $I_C = -10\text{mA}$
Transition frequency	f_T		80		MHz	$V_{CE} = -5\text{V}$, $I_E = 10\text{mA}$
Collector output capacitance	C_{ob}		26		pF	$V_{CB} = 10\text{V}$, $I_E = 0$, $f = 1\text{MHz}$

*Pulse test: Pulse width $\leq 350\mu\text{s}$, duty cycle $\leq 2\%$

CLASSIFICATION OF h_{FE}

Rank	W	V	U
Range	90-180	135-270	200-400
Marking	AW	AV	AU

■ Typical Characteristics

