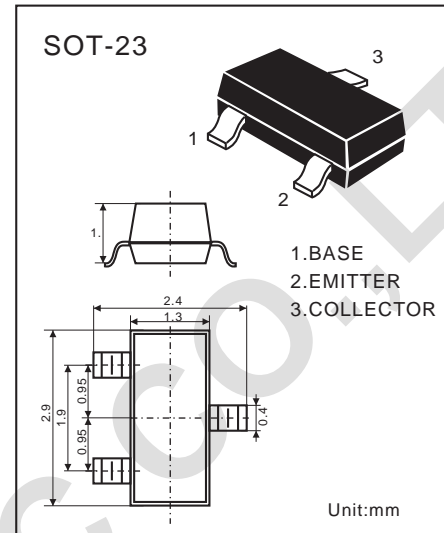


## PNP EPITAXIAL SILICON TRANSISTOR

LOW FREQUENCY, LOW NOISE AMPLIFIER

- Complement to 2SC2712
- Collector-current:  $I_C = -100\text{mA}$
- Collector-Emmitter Voltage:  $V_{CE} = -45\text{V}$



### ABSOLUTE MAXIMUM RATINGS

( $T_a = 25^\circ\text{C}$ )

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	$V_{CB0}$	-50	V
Collector-Emmitter Voltage	$V_{CE0}$	-45	V
Emmitter-Base Voltage	$V_{EB0}$	-5	V
Collector Current	$I_C$	-100	mA
Collector Dissipation $T_a = 25^\circ\text{C}^*$	$P_D$	225	mW
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-55~150	$^\circ\text{C}$

### Electrical Characteristics

( $T_a = 25^\circ\text{C}$ )

Parameter	Symbol	MIN.	TYP.	MAX.	Unit	Condition
Collector-Base Breakdown Voltage	$BV_{CB0}$	-50			V	$I_C = -100\mu\text{A}$ $I_E = 0$
Collector-Emmitter Breakdown Voltage#	$BV_{CE0}$	-45			V	$I_C = -1\text{mA}$ $I_B = 0$
Emmitter-Base Breakdown Voltage	$BV_{EB0}$	-5			V	$I_E = -100\mu\text{A}$ $I_C = 0$
Collector-Base Cutoff Current	$I_{CB0}$			-50	nA	$V_{CB} = -50\text{V}$ , $V_C = 0$
Emmitter-Base Cutoff Current	$I_{EB0}$			-50	nA	$V_{CB} = -5\text{V}$ , $I_C = 0$
DC Current Gain	$H_{FE}$	60	200	600		$V_{CE} = -5\text{V}$ , $I_C = 1\text{mA}$
Collector-Emmitter Saturation Voltage	$V_{CE(sat)}$		-0.20	-0.7	V	$I_C = -100\text{mA}$ , $I_B = -5\text{mA}$
Base-Emmitter Saturation Voltage	$V_{BE(sat)}$		-0.82	100	V	$I_C = -100\text{mA}$ , $I_B = -5\text{mA}$
Base-Emmitter on Voltage	$V_{BE(on)}$	-0.6	-0.67	-0.75	V	$V_{CE} = -5\text{V}$ , $I_C = -2\text{mA}$
Output Capacitance	$C_{ob}$		4.5	7	PF	$V_{CB} = -10\text{V}$ , $I_E = 0$ $f = 1\text{MHz}$
Current Gain-Bandwidth Product	$f_T$	100	190		MHz	$V_{CE} = -5\text{V}$ $I_C = -10\text{mA}$
Noise Figure	NF		0.7	10	dB	$V_{CE} = -5\text{V}$ $I_C = -0.2\text{mA}$
						$f = 1\text{MHz}$ $R_s = 1\text{Kohm}$

\*Total Device Dissipation: FR=1X0.75X0.062 in Board Derate  $25^\circ\text{C}$

#Pulse Test: Pulse Width 300uS Duty cycle 2%

DEVICE MARKING:

2SA1162=M6