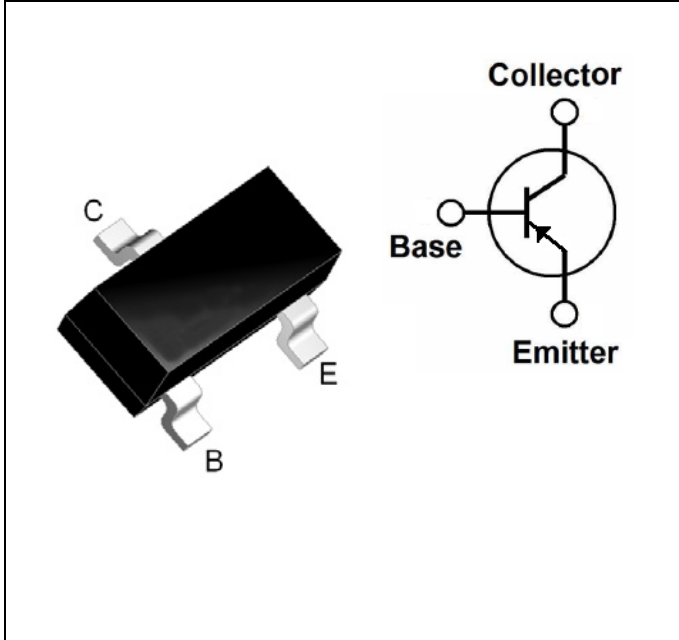


## GENERAL PURPOSE TRANSISTORS PNP Silicon



### FEATURES

- High Breakdown Voltage,  $BV_{CEO} = -120V$
- Complementary to 2SC4102

### MECHANICAL DATA

- Available in SOT-323 Package
- Solderability : MIL-STD-202, Method 208
- Full RoHS Compliance

PART NUMBER	PACKAGE	SHIPPING	MARKING
2SA1579□-△-T89R	SOT-323	Tape Reel	See Classification Of hFE

**Notes:**

1. □: none is for Lead Free package;  
"G" is for Halogen Free package.
2. △: Rank Of hFE; See Classification Of hFE

### THERMAL DATA

PARAMETER	SYMBOL	VALUES	UNIT
Thermal Resistance, Junction-to-Ambient	$R_{\theta JA}$	1250	°C/W

**Notes:**

3. The value of  $R_{\theta JA}$  is measured with device mounted on 1 in<sup>2</sup> FR-4 board with 2 oz copper.

### ABSOLUTE MAXIMUM RATINGS

$T_A = 25^\circ\text{C}$ , unless otherwise noted.

PARAMETER	SYMBOL	VALUES	UNIT
Collector-Emitter Voltage	$V_{CEO}$	-120	V
Collector-Base Voltage	$V_{CBO}$	-120	V
Emitter-Base Voltage	$V_{EBO}$	-5	V
Collector Current	$I_C$	-50	mA
Power Dissipation @ $T_A = 25^\circ\text{C}$	$P_C$	100	mW
Junction Temperature	$T_J$	150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-55 ~ +150	$^\circ\text{C}$

### ELECTRICAL CHARACTERISTICS

$T_A = 25^\circ\text{C}$ , unless otherwise noted.

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
<b>OFF CHARACTERISTICS</b>						
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -1\text{mA}, I_B = 0$	-120			V
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = -50\ \mu\text{A}, I_E = 0$	-120			V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = -50\ \mu\text{A}, I_C = 0$	-5			V
Emitter Cut-off Current	$I_{EBO}$	$V_{EB} = -4\text{V}, I_C = 0$			-0.5	$\mu\text{A}$
Collector Cut-off Current	$I_{CBO}$	$V_{CB} = -100\text{V}, I_E = 0$			-0.5	$\mu\text{A}$
<b>ON CHARACTERISTICS</b>						
DC Current Gain	$h_{FE}$	$I_C = -2\text{mA}, V_{CE} = -6\text{V}$	180		560	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -10\text{mA}, I_B = -1\text{mA}$			-0.5	V
<b>SMALL-SIGNAL CHARACTERISTICS</b>						
Transition Frequency	$f_T$	$I_C = -2\text{mA}, V_{CE} = -12\text{V}, f = 30\text{MHz}$		140		MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB} = -12\text{V}, I_E = 0, f = 1\text{MHz}$		3.2		pF

### CLASSIFICATION OF $h_{FE}$

RANK	R	S
$h_{FE}$ RANGE	180~390	270~560
MARKING	RR	RS

## TYPICAL PERFORMANCE CHARACTERISTICS

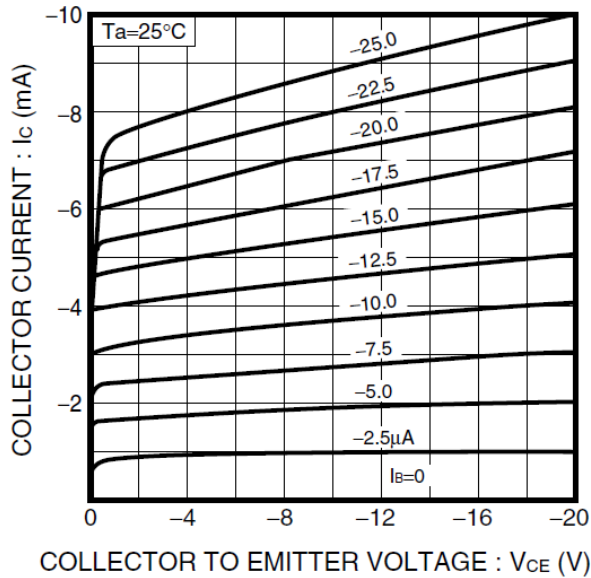


Fig.1 Ground emitter output characteristics

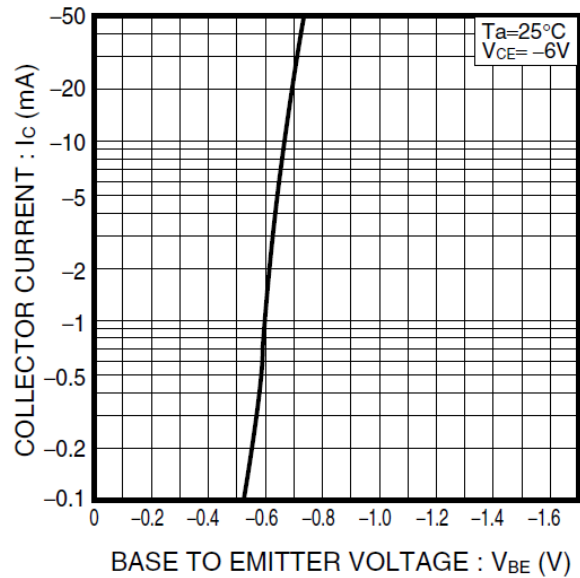


Fig.2 Ground emitter propagation characteristics

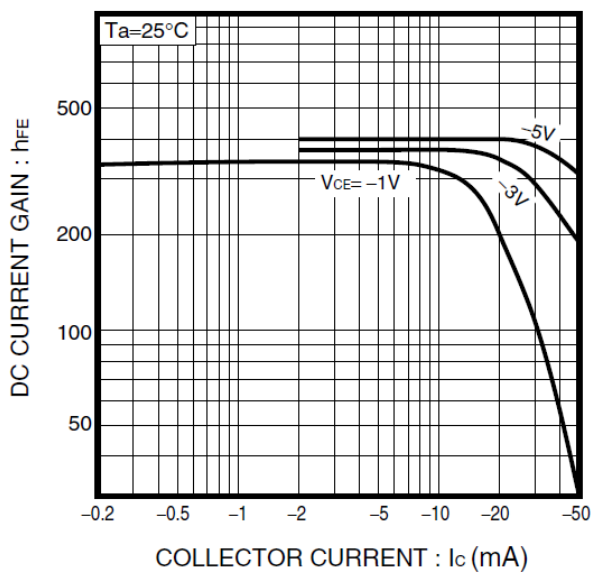


Fig.3 DC current gain vs. collector current

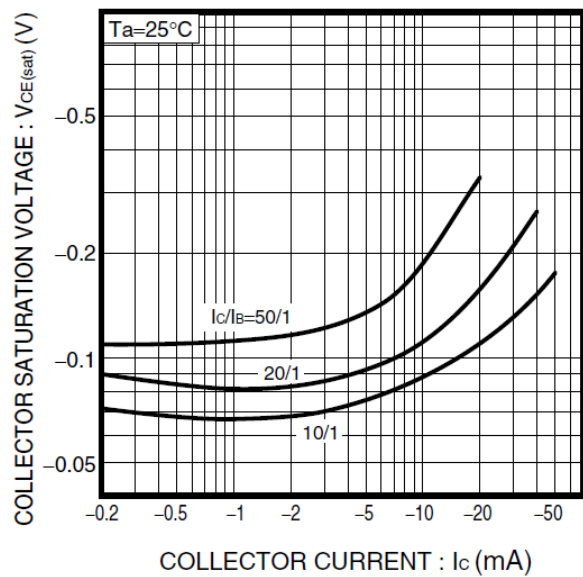


Fig.4 Collector-Emitter saturation voltage vs. collector current

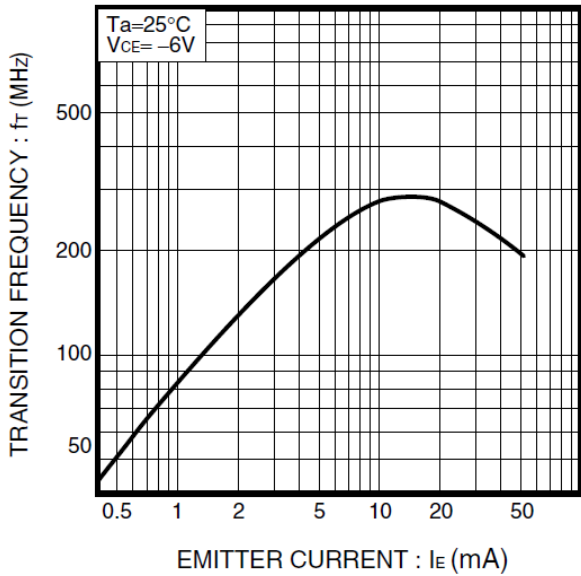


Fig.5 Transition frequency vs. emitter current

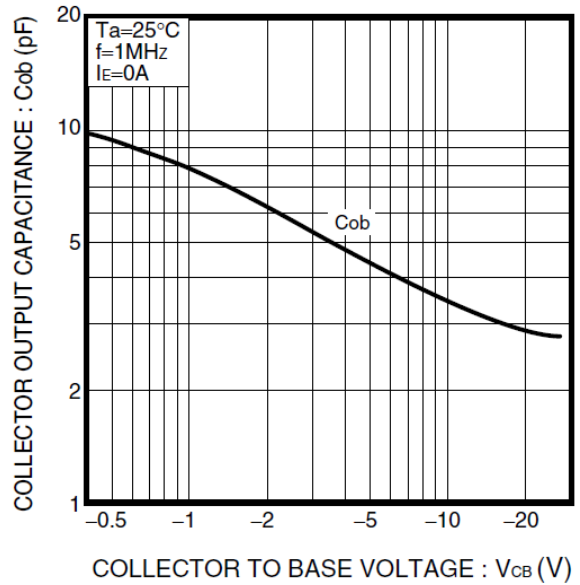


Fig.6 Collector output capacitance vs. collector-base voltage

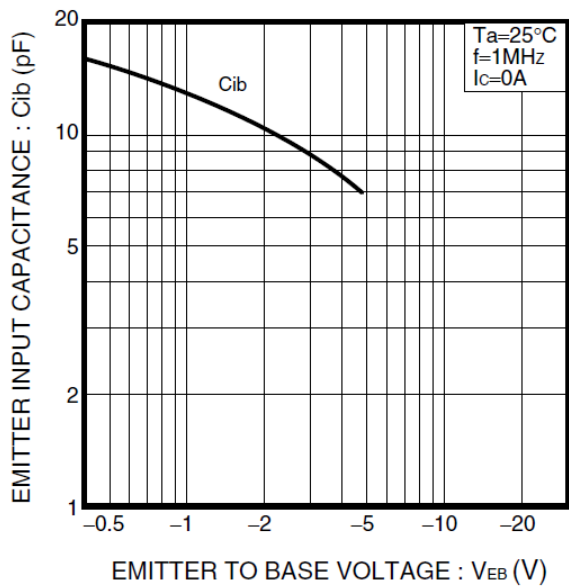


Fig.7 Emitter input capacitance vs. emitter-base voltage

**PHYSICAL DIMENSION**

Unit : Inch (Millimeter)

