

# 2SC4627

## Silicon NPN epitaxial planer type

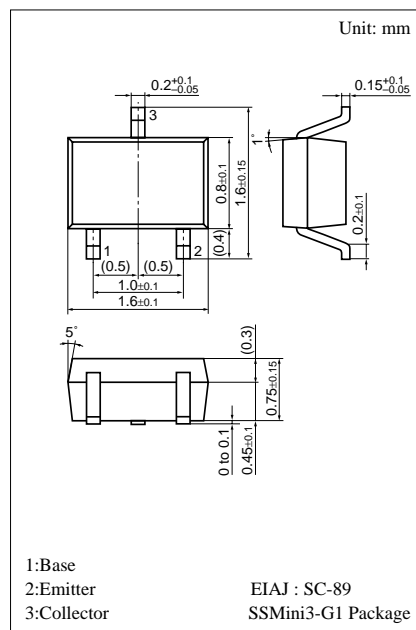
For high-frequency amplification

### Features

- Optimum for RF amplification of FM/AM radios.
- High transition frequency  $f_T$ .
- SS-Mini type package, allowing downsizing of the equipment and automatic insertion through the tape packing.

### Absolute Maximum Ratings ( $T_a=25^\circ\text{C}$ )

Parameter	Symbol	Ratings	Unit
Collector to base voltage	$V_{CBO}$	30	V
Collector to emitter voltage	$V_{CEO}$	20	V
Emitter to base voltage	$V_{EBO}$	3	V
Collector current	$I_C$	15	mA
Collector power dissipation	$P_C$	125	mW
Junction temperature	$T_j$	125	$^\circ\text{C}$
Storage temperature	$T_{stg}$	$-55 \sim +125$	$^\circ\text{C}$



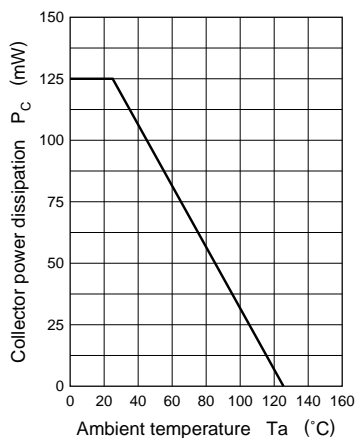
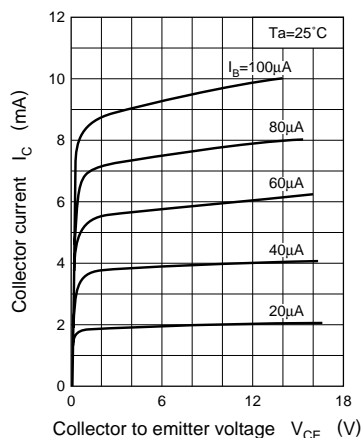
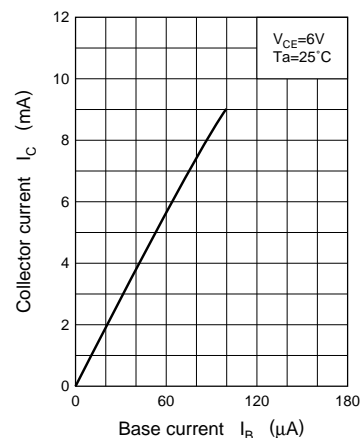
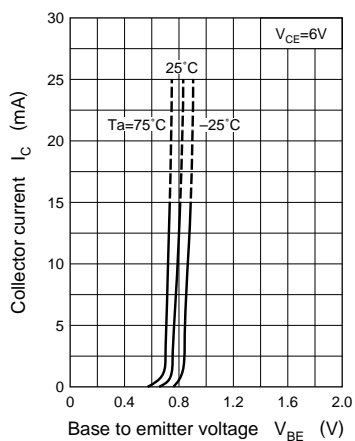
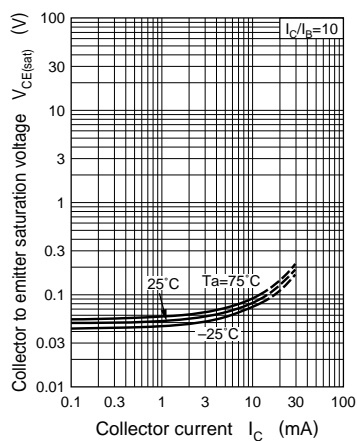
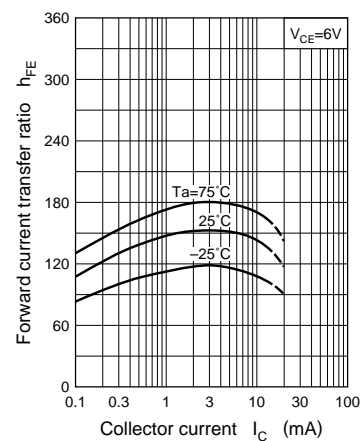
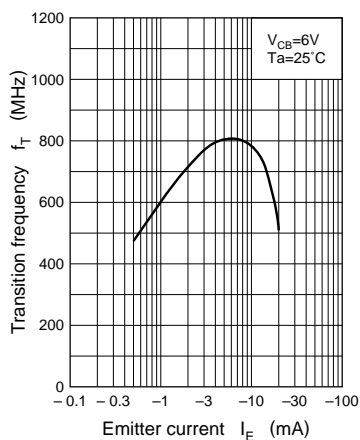
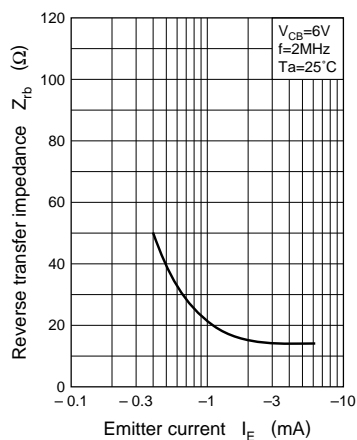
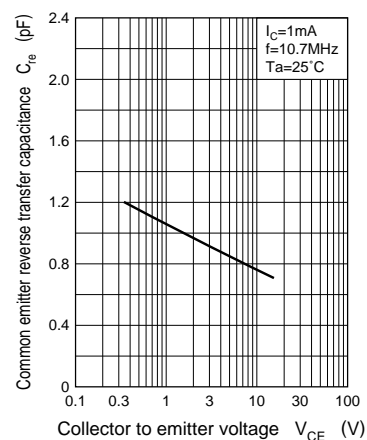
Marking symbol : U

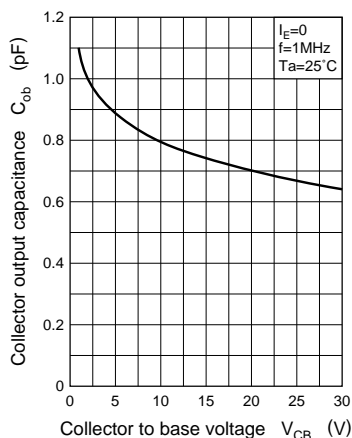
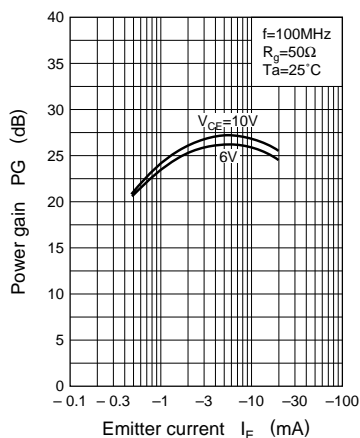
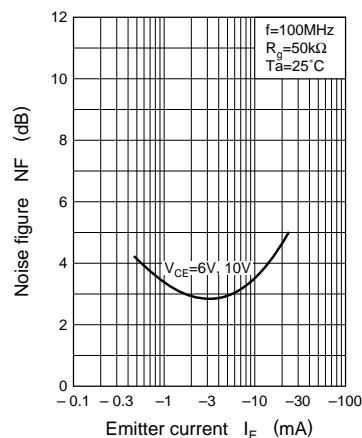
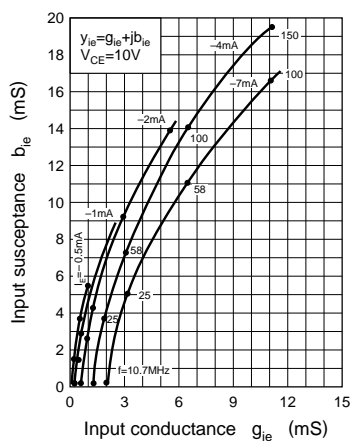
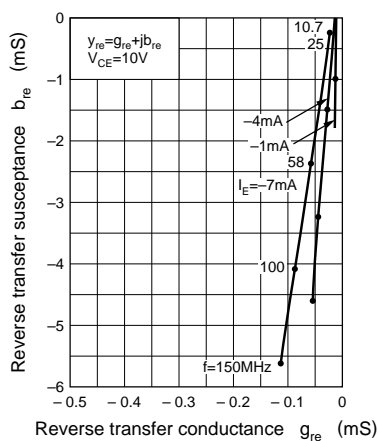
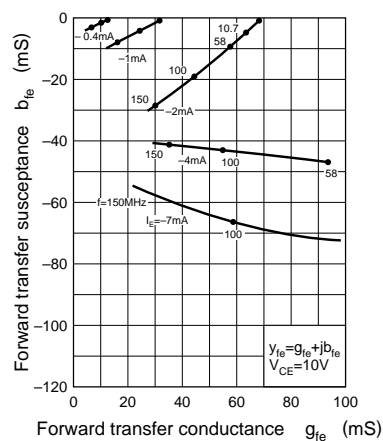
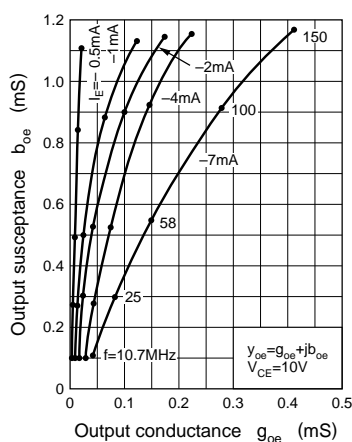
### Electrical Characteristics ( $T_a=25^\circ\text{C}$ )

Parameter	Symbol	Conditions	min	typ	max	Unit
Collector to base voltage	$V_{CBO}$	$I_C = 10\mu\text{A}$ , $I_E = 0$	30			V
Emitter to base voltage	$V_{EBO}$	$I_E = 10\mu\text{A}$ , $I_C = 0$	3			V
Forward current transfer ratio	$h_{FE}^*$	$V_{CB} = 6\text{V}$ , $I_E = -1\text{mA}$	40		260	
Base to emitter voltage	$V_{BE}$	$V_{CB} = 6\text{V}$ , $I_E = -1\text{mA}$		0.72		V
Transition frequency	$f_T$	$V_{CB} = 6\text{V}$ , $I_E = -1\text{mA}$ , $f = 200\text{MHz}$	450	650		MHz
Common emitter reverse transfer capacitance	$C_{re}$	$V_{CB} = 6\text{V}$ , $I_E = -1\text{mA}$ , $f = 10.7\text{MHz}$		0.8	1	pF
Power gain	PG	$V_{CB} = 6\text{V}$ , $I_E = -1\text{mA}$ , $f = 100\text{MHz}$		24		dB
Noise figure	NF	$V_{CB} = 6\text{V}$ , $I_E = -1\text{mA}$ , $f = 100\text{MHz}$		3.3		dB

\* $h_{FE}$  Rank classification

Rank	B	C	D
$h_{FE}$	40 ~ 110	65 ~ 160	100 ~ 260
Marking Symbol	UB	UC	UD

$P_C - T_a$  $I_C - V_{CE}$  $I_C - I_B$  $I_C - V_{BE}$  $V_{CE(sat)} - I_C$  $h_{FE} - I_C$  $f_T - I_E$  $Z_{rb} - I_E$  $C_{re} - V_{CE}$ 

$C_{ob} - V_{CB}$  $PG - I_E$  $NF - I_E$  $b_{ie} - g_{ie}$  $b_{re} - g_{re}$  $b_{fe} - g_{fe}$  $b_{oe} - g_{oe}$ 

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