

2SC2778

Silicon NPN epitaxial planer type

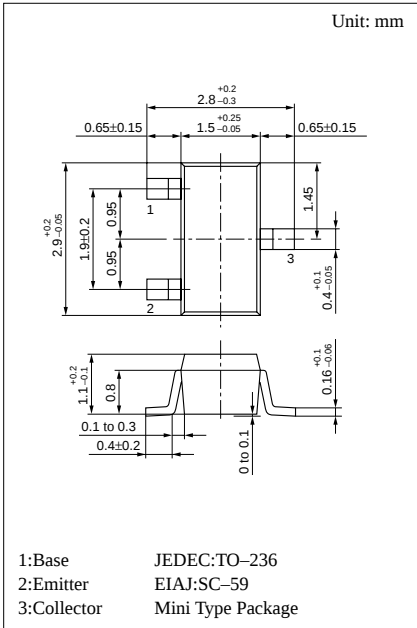
For high-frequency amplification

Features

- Optimum for RF amplification, oscillation, mixing, and IF of FM/AM radios.
- Mini type package, allowing downsizing of the equipment and automatic insertion through the tape packing and the magazine packing.

Absolute Maximum Ratings (Ta=25°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}	5	V
Collector current	I_C	30	mA
Collector power dissipation	P_C	200	mW
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 ~ +150	°C



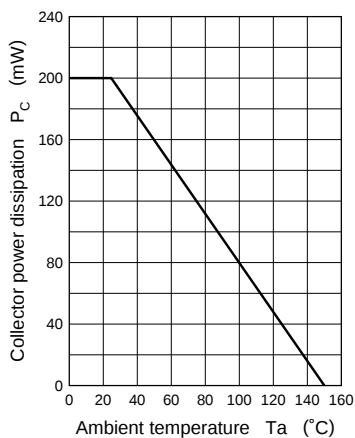
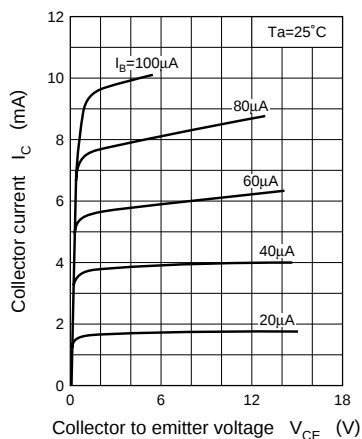
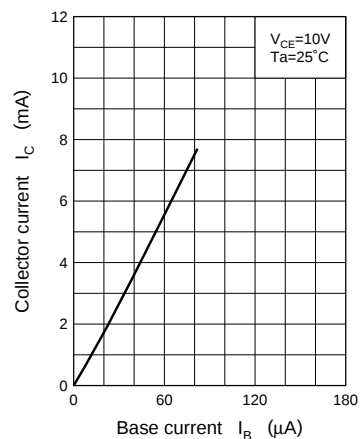
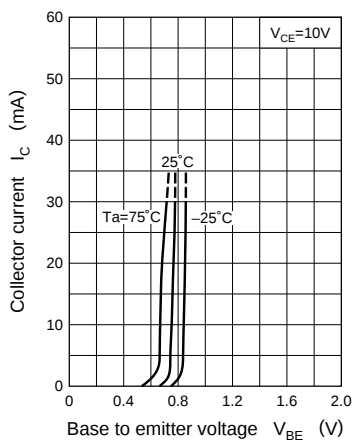
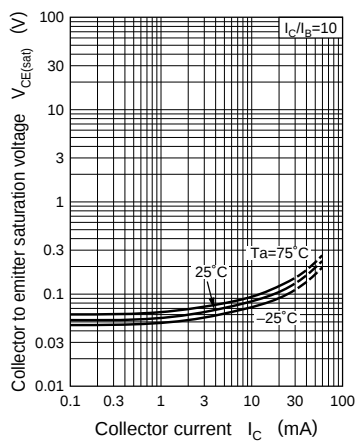
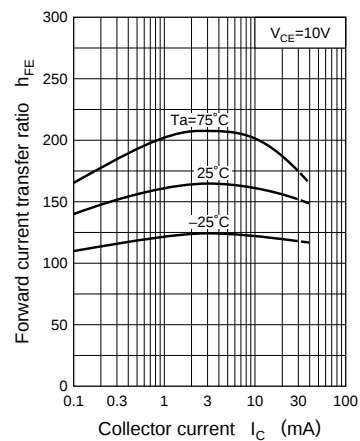
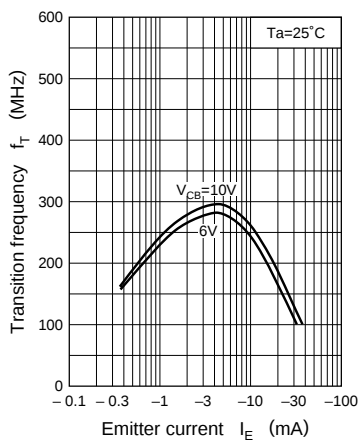
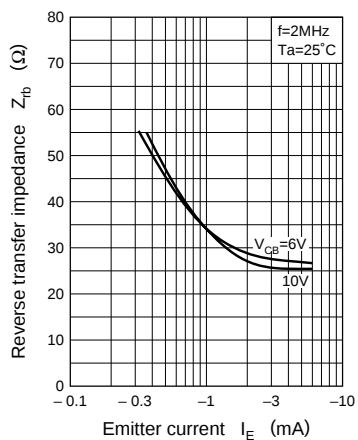
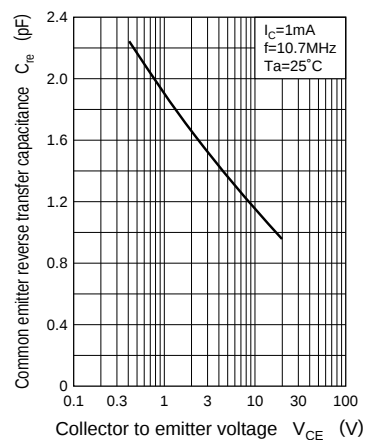
Marking symbol : K

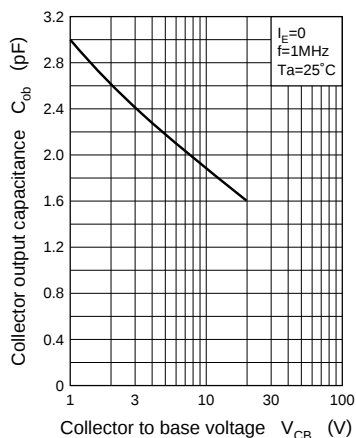
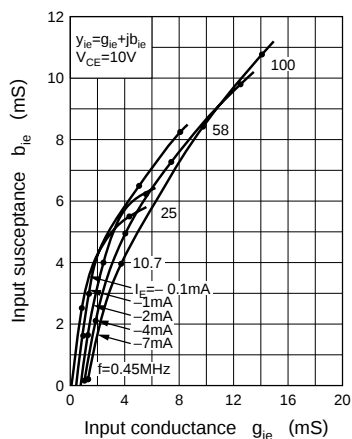
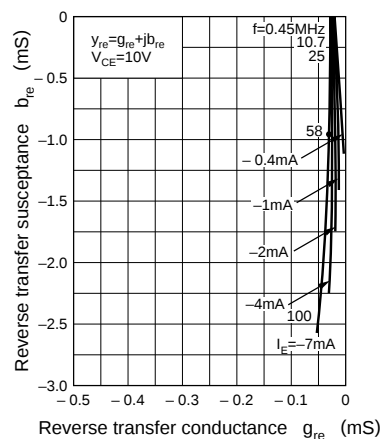
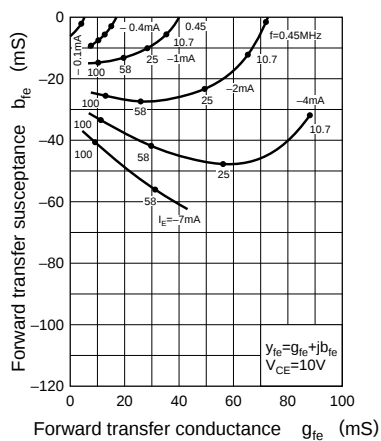
Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Conditions	min	typ	max	Unit
Collector to base voltage	V_{CBO}	$I_C = 10\mu A, I_E = 0$	30			V
Collector to emitter voltage	V_{CEO}	$I_C = 2mA, I_B = 0$	20			V
Emitter to base voltage	V_{EBO}	$I_E = 10\mu A, I_C = 0$	5			V
Forward current transfer ratio	h_{FE}^*	$V_{CE} = 10V, I_C = 1mA$	70		250	
Transition frequency	f_T	$V_{CB} = 10V, I_E = -1mA, f = 200MHz$	150	230		MHz
Common emitter reverse transfer capacitance	C_{re}	$V_{CE} = 10V, I_C = 1mA, f = 10.7MHz$		1.3		pF

* h_{FE} Rank classification

Rank	B	C
h_{FE}	70 ~ 160	110 ~ 250
Marking Symbol	KB	KC

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

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