

2SA1748

Silicon PNP epitaxial planer type

For high-frequency amplification

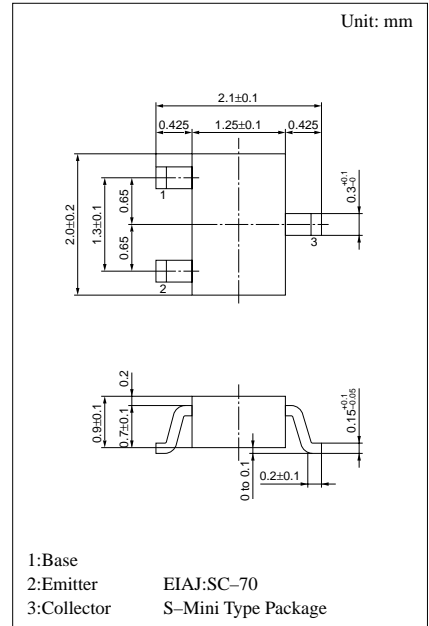
Complementary to 2SC4562

■ Features

- High transition frequency f_T .
- Small collector output capacitance C_{ob} .
- S-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}	-50	V
Collector to emitter voltage	V_{CEO}	-50	V
Emitter to base voltage	V_{EBO}	-5	V
Collector current	I_C	-50	mA
Collector power dissipation	P_C	150	mW
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 ~ +150	°C



Marking symbol : AL

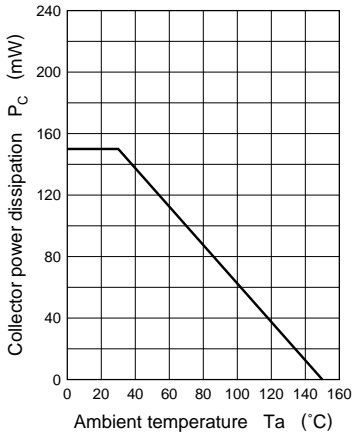
■ Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Conditions	min	typ	max	Unit
Collector cutoff current	I_{CBO}	$V_{CB} = -10V, I_E = 0$			-0.1	μA
	I_{CEO}	$V_{CE} = -10V, I_B = 0$			-100	μA
Collector to base voltage	V_{CBO}	$I_C = -10\mu A, I_E = 0$	-50			V
Collector to emitter voltage	V_{CEO}	$I_C = -1mA, I_B = 0$	-50			V
Emitter to base voltage	V_{EBO}	$I_E = -10\mu A, I_C = 0$	-5			V
Forward current transfer ratio	h_{FE}	$V_{CE} = -10V, I_C = -2mA$	200		500	
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = -10mA, I_B = -1mA$		-0.1	-0.3	V
Transition frequency	f_T	$V_{CB} = -10V, I_E = 2mA, f = 200MHz$		250		MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10V, I_E = 0, f = 1MHz$		1.5		pF

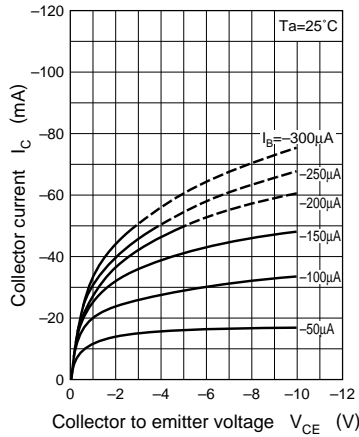
* h_{FE} Rank classification

Rank	Q	R
h_{FE}	200 ~ 400	250 ~ 500
Marking Symbol	ALQ	ALR

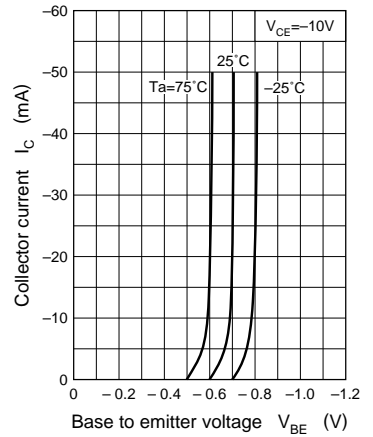
$P_C - T_a$



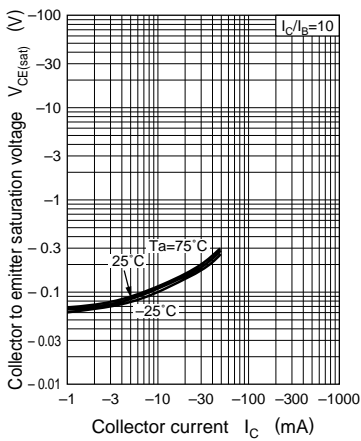
$I_C - V_{CE}$



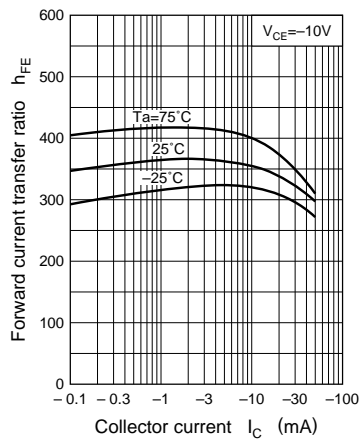
$I_C - V_{BE}$



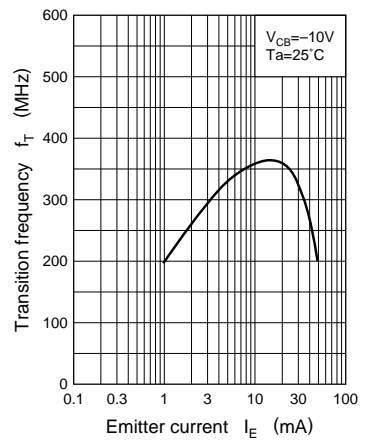
$V_{CE(sat)} - I_C$



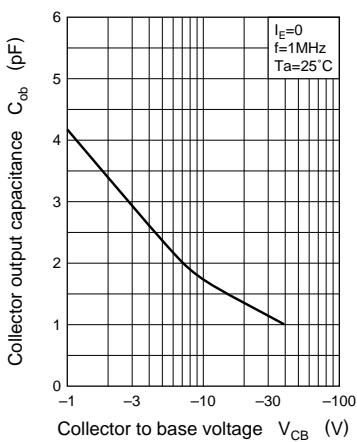
$h_{FE} - I_C$



$f_T - I_E$



$C_{ob} - V_{CB}$



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