2SA0838 (2SA838)

Silicon PNP epitaxial planer type

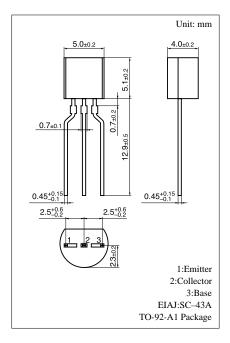
Absolute Maximum Ratings (Ta=25°C)

For high-frequency amplification Complementary to 2SC1359

Features

• High transition frequency f_T.

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	250	mW
Junction temperature	Tj	150	°C
Storage temperature	T _{stg}	-55 ~ +150	°C



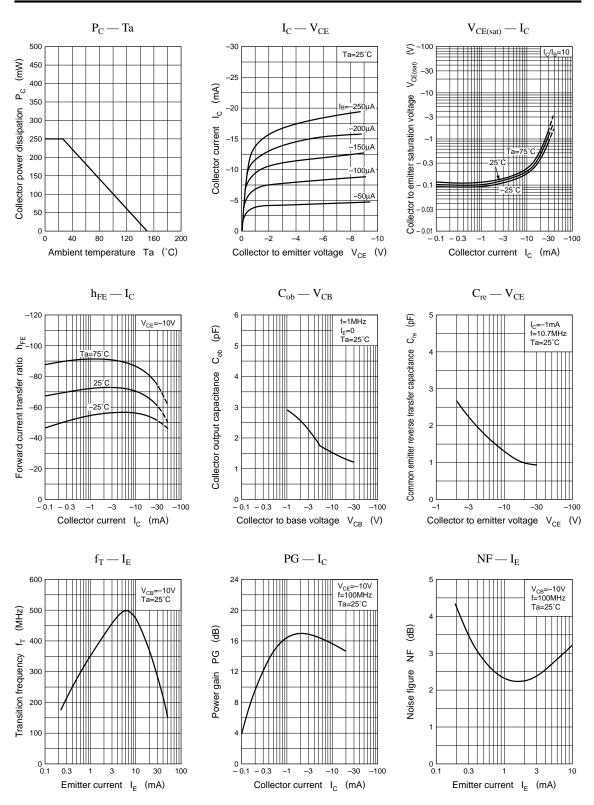
Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Conditions	min	typ	max	Unit
Collector cutoff current	I _{CBO}	$V_{CB} = -10V, I_E = 0$			- 0.1	μA
	I _{CEO}	$V_{CE} = -20V, I_B = 0$			-100	
Emitter cutoff current	I _{EBO}	$V_{EB} = -5V, I_C = 0$			-10	μΑ
Forward current transfer ratio	h _{FE} *	$V_{CE} = -10V, I_C = -1mA$	70		220	
Collector to emitter saturation voltage	V _{CE(sat)}	$I_{\rm C} = -10 {\rm mA}, I_{\rm B} = -1 {\rm mA}$		- 0.1		V
Base to emitter voltage	V _{BE}	$V_{CE} = -10V, I_C = -1mA$		- 0.7		V
Transition frequency	f _T	$V_{CB} = -10V, I_E = 1mA, f = 200MHz$	150	300		MHz
Noise figure	NF	$V_{CB} = -10V, I_E = 1mA, f = 5MHz$		2.8	4.0	dB
Reverse transfer impedance	Z _{rb}	$V_{CE} = -10V, I_C = -1mA, f = 2MHz$		22	50	Ω
Common emitter reverse transfer	C	$V_{CE} = -10V, I_C = -1mA,$		1.2	2.0	πE
capacitance	C _{re}	f = 10.7 MHz		1.2	2.0	pF

*hFE Rank classification

Rank	В	С
h_{FE}	70 ~ 140	$110\sim 220$

Note.) The Part number in the Parenthesis shows conventional part number.



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