2SA0838 (2SA838)

Silicon PNP epitaxial planar type

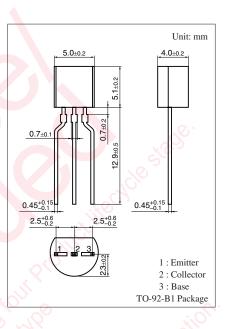
For low-frequency amplification Complementary to 2SC1359

Features

 \bullet High transfer ratio $f_{\rm T}$

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V _{CBO}	-30	V
Collector-emitter voltage (Base open)	V _{CEO}	-20	V
Emitter-base voltage (Collector open)	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 to +150	°C





Electrical Characteristics $T_a = 25^{\circ}C \pm 3^{\circ}C$

Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Base-emitter saturation voltage	V _{BE}	$V_{CE} = -10 \text{ V}, I_C = -1 \text{ mA}$	30	- 0.7		V
Collector-base cutoff current (Emitter open)	I _{CBO}	$V_{CB} = -10 \text{ V}, I_E = 0$	n al	, C	- 0.1	μΑ
Collector-emitter cutoff current (Base open)	I _{CEO}	$V_{CE} = -20 \text{ V}, I_B = 0$	$\sqrt{2}$		-100	μΑ
Emitter-base cutoff current (Collector open)	I _{EBO}	$V_{EB} = -5 V, I_C = 0$			-10	μΑ
Forward current transfer ratio *	h _{FE}	$V_{CE} = -10 \text{ V}, I_C = -1 \text{ mA}$	70		220	
Collector-emitter saturation voltage	V _{CE(sat)}	$I_{\rm C} = -10 \text{ mA}, I_{\rm B} = -1 \text{ mA}$		- 0.1		V
Transition frequency	f _T	$V_{CB} = -10 \text{ V}, I_E = 1 \text{ mA}, f = 200 \text{ MHz}$	150	300		MHz
Noise figure	NF	$V_{CB} = -10$ V, $I_E = 1$ mA, $f = 5$ MHz		2.8	4.0	dB
Reverse transfer impedance	Z _{rb}	$V_{CE} = -10 \text{ V}, I_C = -1 \text{ mA}, f = 2 \text{ MHz}$		22	50	Ω
Reverse transfer capacitance (Common-emitter)	C _{re}	$V_{CE} = -10 \text{ V}, I_C = -1 \text{ mA}, f = 10.7 \text{ MHz}$		1.2	2.0	pF

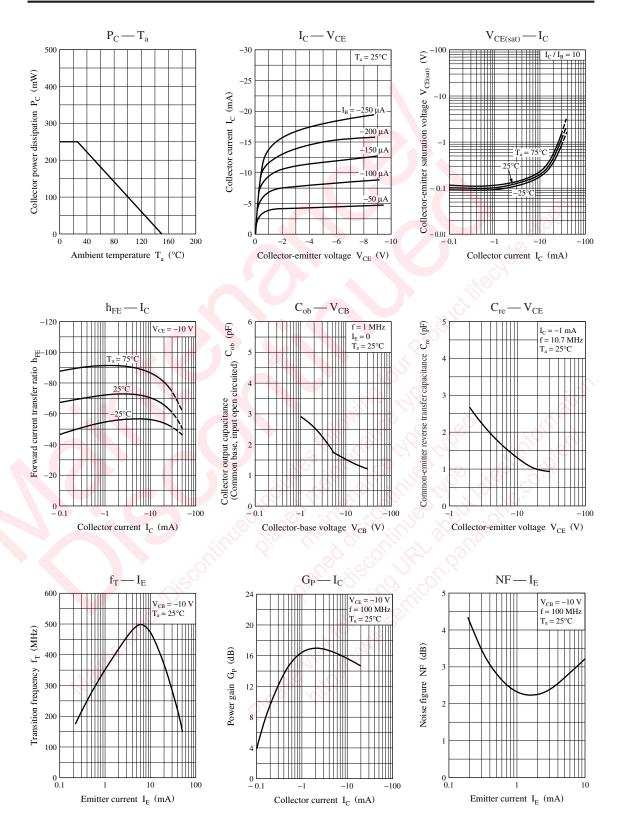
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

2. *: Rank classification

Rank	В	С
h _{FE}	70 to 140	110 to 220

Note) The part number in the parenthesis shows conventional part number.

Panasonic



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