2SD1823

Silicon NPN epitaxial planer type

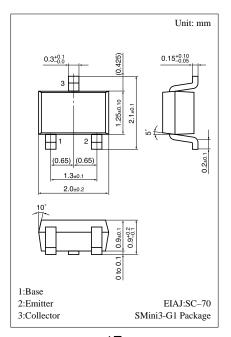
For low-frequency amplification

Features

- High foward current transfer ratio h_{FE}.
- ullet Low collector to emitter saturation voltage $V_{CE(sat)}$.
- High emitter to base voltage V_{EBO}.
- Low noise voltage NV.
- 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}	40	V
Emitter to base voltage	V_{EBO}	15	V
Peak collector current	I _{CP}	100	mA
Collector current	I_{C}	50	mA
Collector power dissipation	P_{C}	150	mW
Junction temperature	T _j	150	°C
Storage temperature	$T_{\rm stg}$	−55 ~ +150	°C



Marking symbol: 1Z

Electrical Characteristics (Ta=25°C)

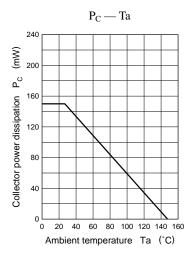
Parameter	Symbol	Conditions	min	typ	max	Unit
Collector cutoff current	I_{CBO}	$V_{CB} = 20V, I_E = 0$			100	nA
	I_{CEO}	$V_{CE} = 20V, I_{B} = 0$			1	μΑ
Collector to base voltage	V _{CBO}	$I_C = 10\mu A, I_E = 0$	50			V
Collector to emitter voltage	V _{CEO}	$I_{C} = 1 \text{mA}, I_{B} = 0$	40			V
Emitter to base voltage	V _{EBO}	$I_E = 10\mu A, I_C = 0$	15			V
Forward current transfer ratio	h _{FE} *	$V_{CE} = 10V, I_{C} = 2mA$	400	1000	2000	
Collector to emitter saturation voltage	V _{CE(sat)}	$I_{C} = 10\text{mA}, I_{B} = 1\text{mA}$		0.05	0.2	V
Transition frequency	f_T	$V_{CB} = 10V, I_{E} = -2mA, f = 200MHz$		120		MHz

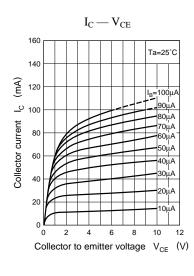
*h_{FE} Rank classification

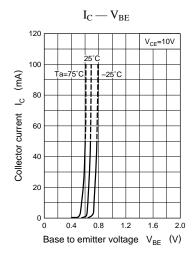
Rank	R	S	T
h_{FE}	400 ~ 800	600 ~ 1200	1000 ~ 2000
Marking Symbol	1ZR	1ZS	1ZT

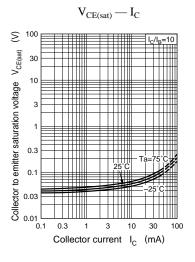
636 Panasonic

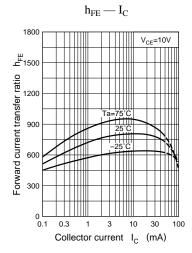
Transistor 2SD1823

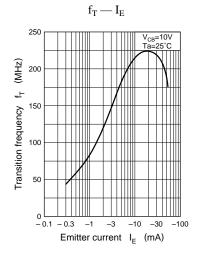


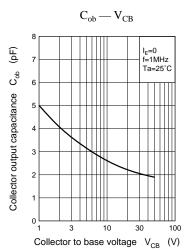












Panasonic 637

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