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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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2SC4835

Silicon NPN epitaxial planar type

For UHF band low-noise amplification

■ Features

- Low noise figure NF
- High forward transfer gain $|S_{21e}|^2$
- High transition frequency f_T
- S-Mini type package, allowing downsizing of the equipment and automatic insertion through the tape packing and the magazine packing

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V_{CBO}	15	V
Collector-emitter voltage (Base open)	V_{CEO}	10	V
Emitter-base voltage (Collector open)	V_{EBO}	2	V
Collector current	I_{C}	80	mA
Collector power dissipation	P_{C}	150	mW
Junction temperature	T_{j}	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

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

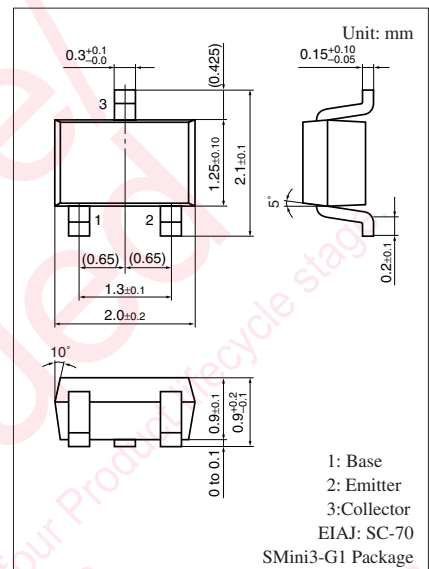
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	V_{CBO}	$I_{\text{C}} = 10 \mu\text{A}, I_{\text{E}} = 0$	15			V
Collector-emitter voltage (Base open)	V_{CEO}	$I_{\text{C}} = 100 \mu\text{A}, I_{\text{B}} = 0$	10			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{\text{CB}} = 10 \text{V}, I_{\text{E}} = 0$			1	μA
Emitter-base cutoff current (Collector open)	I_{EBO}	$V_{\text{EB}} = 2 \text{V}, I_{\text{C}} = 0$			1	μA
Forward current transfer ratio *1,2	h_{FE}	$V_{\text{CE}} = 8 \text{V}, I_{\text{C}} = 20 \text{mA}$	50		200	—
Transition frequency	f_{T}	$V_{\text{CE}} = 8 \text{V}, I_{\text{C}} = 15 \text{mA}, f = 800 \text{MHz}$	5	6		GHz
Collector output capacitance (Common base, input open circuited)	C_{ob}	$V_{\text{CB}} = 10 \text{V}, I_{\text{E}} = 0, f = 1 \text{MHz}$		0.7	1.2	pF
Forward transfer gain	$ S_{21e} ^2$	$V_{\text{CE}} = 8 \text{V}, I_{\text{C}} = 15 \text{mA}, f = 800 \text{MHz}$	11	14		dB
Maximum unilateral power gain	G_{UM}	$V_{\text{CE}} = 8 \text{V}, I_{\text{C}} = 15 \text{mA}, f = 800 \text{MHz}$		15		dB
Noise figure	NF	$V_{\text{CE}} = 8 \text{V}, I_{\text{C}} = 7 \text{mA}, f = 800 \text{MHz}$		1.3	2.0	dB

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

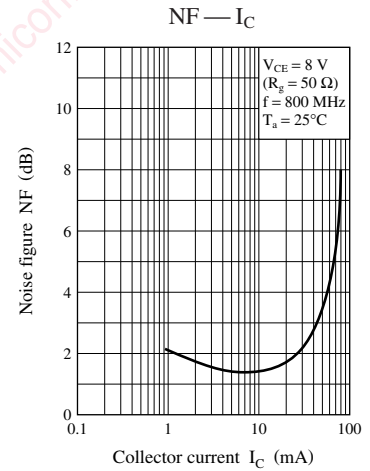
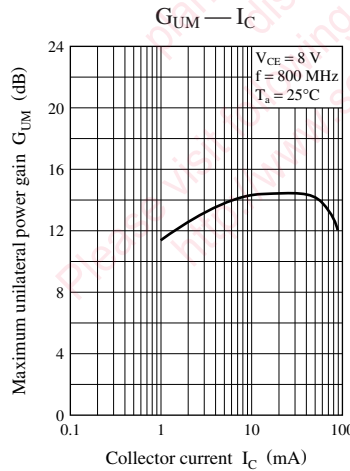
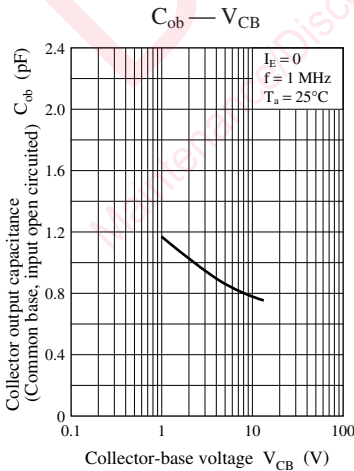
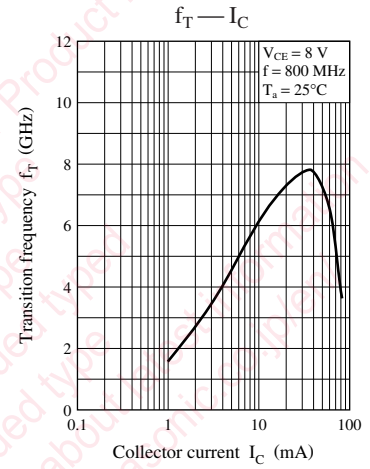
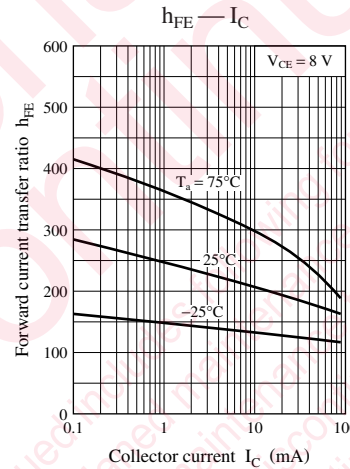
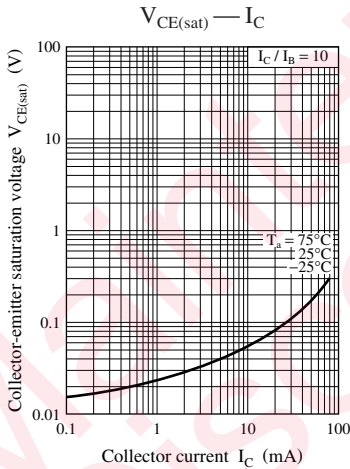
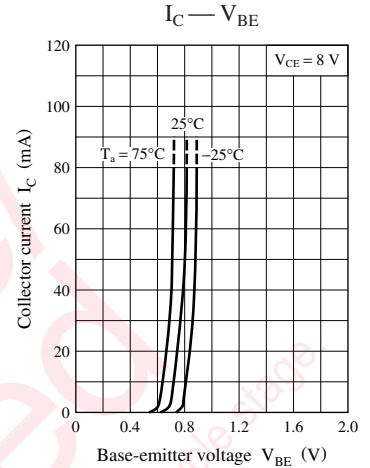
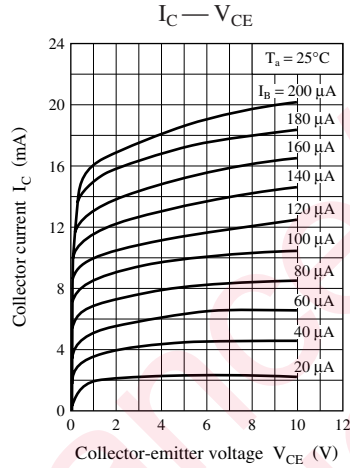
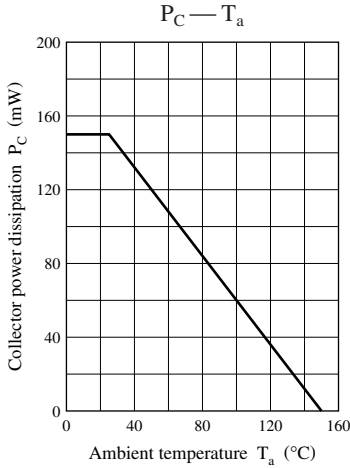
2. *1: Pulse measurement

*2: Rank classification

Rank	Q	R	S
h_{FE}	50 to 100	80 to 130	100 to 200



Marking Symbol: 3M



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