

Low frequency amplifier

2SD2670

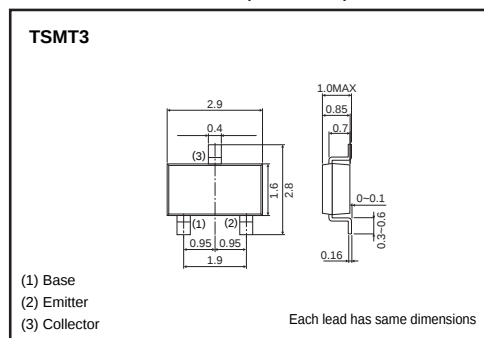
●Application

Low frequency amplifier
Driver

●Features

- 1) A collector current is large.
- 2) $V_{CE(sat)}$: max.250mV
At $I_C=1.5A$ / $I_B=30mA$

●External dimensions (Unit : mm)



●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-base voltage	V_{CBO}	15	V
Collector-emitter voltage	V_{CEO}	12	V
Emitter-base voltage	V_{EBO}	6	V
Collector current	I_C	3	A
	I_{CP}	6	A*1
Power dissipation	P_C	500	mW
		1*2	W
Junction temperature	T_j	150	°C
Range of storage temperature	T_{stg}	-55 to +150	°C

*1 Single pulse, $P_w=1ms$

*2 Mounted on a 25×25×1.0mm Ceramic substrate

●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CBO}	15	—	—	V	$I_C=10\mu A$
Collector-emitter breakdown voltage	BV_{CEO}	12	—	—	V	$I_C=1mA$
Emitter-base breakdown voltage	BV_{EBO}	6	—	—	V	$I_E=10\mu A$
Collector cutoff current	I_{CBO}	—	—	100	nA	$V_{CB}=15V$
Emitter cutoff current	I_{EBO}	—	—	100	nA	$V_{EB}=6V$
Collector-emitter saturation voltage	$V_{CE(sat)}$	—	120	250	mV	$I_C=1.5A$, $I_B=30mA$
DC current gain	h_{FE}	270	—	680	—	$V_{CE}=2V$, $I_C=500mA$ *
Transition frequency	f_T	—	360	—	MHz	$V_{CE}=2V$, $I_E=500mA$, $f=100MHz$ *
Collector output capacitance	C_{ob}	—	30	—	pF	$V_{CB}=10V$, $I_E=0A$, $f=1MHz$

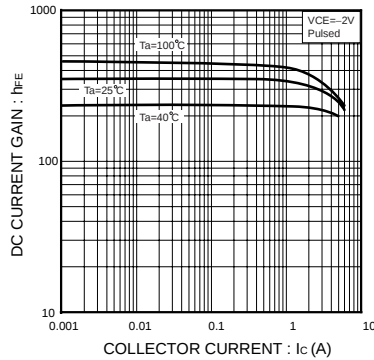
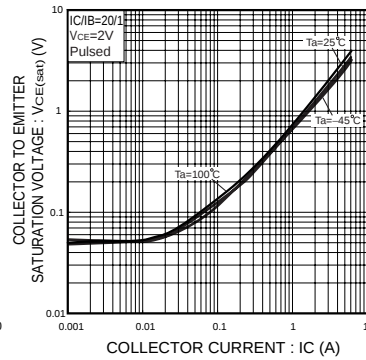
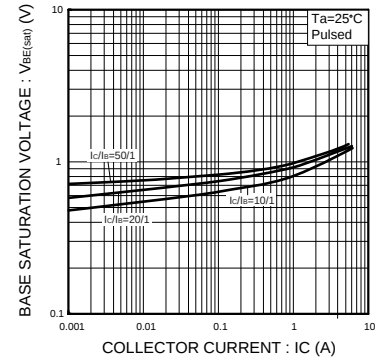
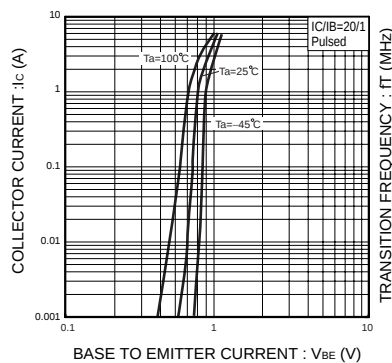
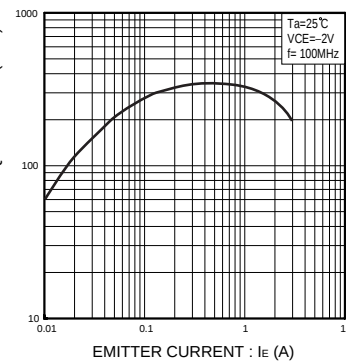
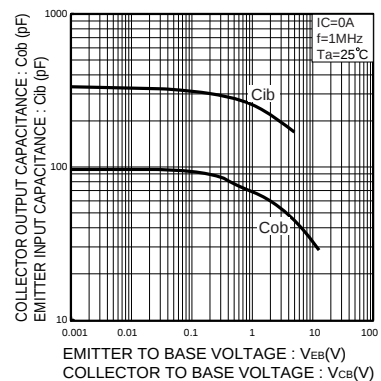
* Pulse

Transistors

●Packaging specifications

Type	package	Taping
	Code	TL
	Basic ordering unit (pieces)	3000
2SD2670		○

●Electrical characteristic curves

Fig.1 DC current gain
vs. collector currentFig.2 Collector-emitter saturation voltage
vs. collector currentFig.3 Base-emitter saturation voltage
vs. collector currentFig.4 Grounded emitter propagation
characteristicsFig.5 Gain bandwidth product
vs. emitter currentFig.6 Collector output capacitance
vs. collector-base voltage
Emitter input capacitance
vs. emitter-base voltage

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