Low frequency amplifier

2SD2670

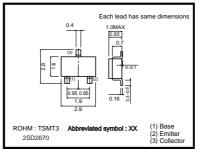
 Application Low frequency amplifier

Driver

Features

1) A collector current is large. 2) $V_{CE(sat)} \leq 250 \text{mV}$ At Ic=1.5A / IB=30mA

•External dimensions (Unit : mm)



●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-base voltage	Vсво	15	V
Collector-emitter voltage	VCEO	12	V
Emitter-base voltage	Vево	6	V
Collector current	lc	3	A
Collector current	Іср	6	A*1
Power siddipation	Pc	500	mW
Fower siddipation	FC	1 *2	W
Junction temperature	Tj	150	°C
Range of storage temperature	Tstg	-55 to +150	°C

*1 Single pulse, Pw=1ms *2 Mounted on a 25×25×t0.8mm Ceramic substrate

Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions
Collector-base breakdown voltage	ВУсво	15	-	-	V	Ic=10μA
Collector-emitter breakdown voltage	BVCEO	12	-	-	V	Ic=1mA
Emitter-base breakdown voltage	ВVево	6	-	-	V	Ιε=10μA
Collector cutoff current	Ісво	-	-	100	nA	Vcb=15V
Emitter cutoff current	Іево	-	-	100	nA	Veb=6V
Collector-emitter saturation voltage	VCE(sat)	-	120	250	mV	Ic=1.5А, Iв=30mА
DC current gain	hfe	270	-	680	_	Vce=2V, Ic=500mA*
Transition frequency	fт	-	360	-	MHz	Vce=2V, Ie=-500mA, f=100MHz*
Collector output capacitance	Cob	-	30	-	pF	Vcb=10V, IE=0A, f=1MHz

•Electrical characteristics (Ta=25°C)

* Pulse

Transistors

Packaging specifications

	package	Taping
Туре	Code	TL
	Basic ordering unit (pieces)	3000
2SD2670		0

•Electrical characteristic curves

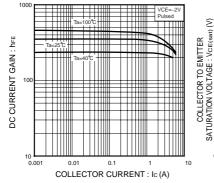


Fig.1 DC current gain vs. collector current

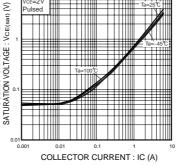


Fig.2 Collector-emitter saturation voltage vs. collector current

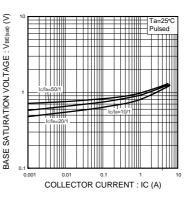
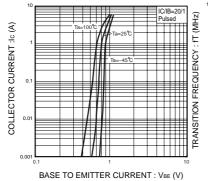
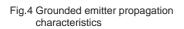


Fig.3 Base-emitter saturation voltage vs.collector current





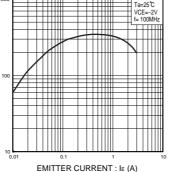
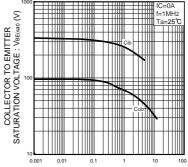


Fig.5 Gain bandwidth product

vs. emitter current



EMITTER TO BASE VOLTAGE : $V_{\text{EB}}(V)$ COLLECTOR TO BASE VOLTAGE : $V_{\text{CB}}(V)$

Fig.6 Collector output capacitance vs. collector-base voltage Emitter input capacitance vs. emitter-base voltage

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