Low frequency amplifier 2SD2700

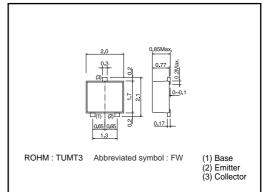
Application

Low frequency amplifier Driver

● Features

- 1) A collector current is large.
- 2) $VCE(sat) \le 180mV$ at Ic = 1A/IB = 50mA

●Dimensions (Unit:mm)



● Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Symbol Limits		
Collector-base voltage	Vсво	15	V	
Collector-emitter voltage	Vceo	12	٧	
Emitter-base voltage	Vево	6	V	
Collector current	lc	2	Α	
Collector current	ICP	4	A*1	
Dower discipation	Pc	0.4	W	
Power dissipation	10	0.8*2		
Junction temperature	Tj	150	°C	
Range of storage temperature	Tstg	-55 to +150	°C	

●Electrical characteristics (Ta=25°C)

	•					
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	ВУево	6	-	_	V	Iε=10μA
Collector cutoff current	Ісво	_	-	100	nA	VcB=15V
Emitter cutoff current	ІЕВО	_	_	100	nA	V _{EB} =6V
Collector-emitter saturation voltage	VCE(sat)	_	90	180	mV	Ic=1A, Iв=50mA
DC current gain	hfe	270	-	680	-	Vce=2V, Ic=200mA*
Transition frequency	f⊤	_	360	_	MHz	Vce=2V, Ie=-200mA, f=100MHz*
Corrector output capacitance	Cob	_	20	_	pF	Vcb=10V, Ie=0A, f=1MHz

Packaging specifications

	Package	Taping
	Code	TL
Туре	Basic ordering unit (pieces)	3000
2SD2700		0

^{*1} Single pulse, Pw=1ms *2 Mounted on a $25\times25\times^{t}0.8$ mm Ceramic substrate

Electrical characteristic curves

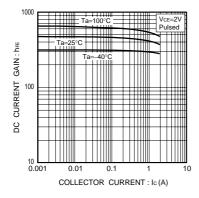


Fig.1 DC current gain vs. collector current

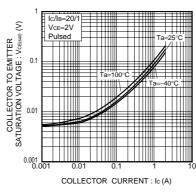


Fig.2 Base-emitter saturation voltage vs. collector current

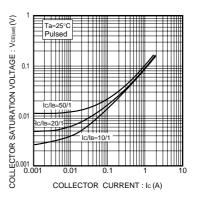


Fig.3 Collector-emitter saturation voltage vs. collector current

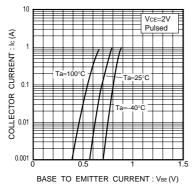


Fig.4 Grounded emitter propagation characteristics

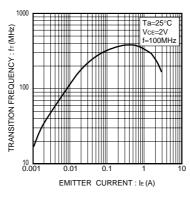


Fig.5 Gain bandwidth product vs. emitter current

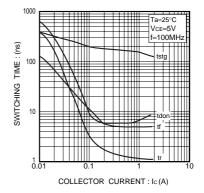


Fig.6 Switching time

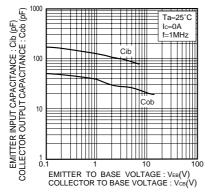


Fig.7 Collector output capacitance vs. collector-base voltage Emitter input capacitance vs. emitter-base voltage

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