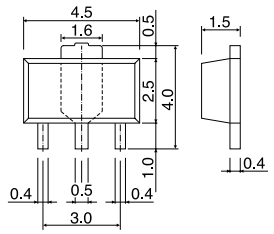
Low frequency amplifier

2SD2662

●Application
Low frequency amplifier
Driver

●Features
1) A collector current is large.
2) $V_{CE(sat)}$ ≦ 350mV
At I_C = 1A / I_B = 50mA

●Dimensions (Unit : mm)



ROHM : MPT3
JEITA : SC-62
JEDEC: SOT-89

(1)Base
(2)Collector
(3)Emitter

Abbreviated symbol : FZ

●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-base voltage	V_{CBO}	30	V
Collector-emitter voltage	V_{CEO}	30	V
Emitter-base voltage	V_{EBO}	6	V
Collector current	I_C	1.5	A
	I_{CP}	3	A*1
Power dissipation	P_C	500	mW
		2*2	W
Junction temperature	tj	150	°C
Range of storage temperature	tstg	−55 to +150	°C

*1 Single pulse, P_W=1ms
*2 Mounted on a 40×40×0.7mm Ceramic substrate

●Packaging specifications

Type	Package	Taping
	Code	T100
	Basic ordering unit (pieces)	1000
2SD2662		○

●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CBO}	30	–	–	V	I_C=10μA
Collector-emitter breakdown voltage	BV_{CEO}	30	–	–	V	I_C=1mA
Emitter-base breakdown voltage	BV_{EBO}	6	–	–	V	I_E=10μA
Collector cut off current	I_{CBO}	–	–	100	nA	V_{CB}=30V
Emitter cut off current	I_{EBO}	–	–	100	nA	V_{EB}=6V
Collector-emitter saturation voltage	$V_{CE(sat)}$	–	160	350	mV	I_C=1A, I_B=50mA
DC current gain	h_{FE}	270	–	680	–	V_{CE}=2V, I_C=100mA*
Transition frequency	f_T	–	330	–	MHz	V_{CE}=2V, I_E=−100mA, f=100MHz*
Corrector output capacitance	Cob	–	11	–	pF	V_{CB}=10V, I_E=0A, f=1MHz

* Pulsed

●Electrical characteristic curves

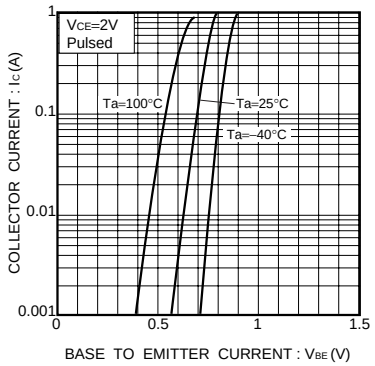


Fig.1 Grounded emitter propagation characteristics

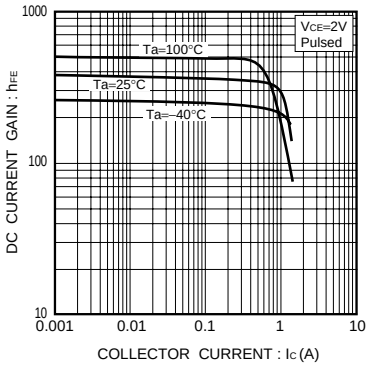


Fig.2 DC current gain vs. collector current

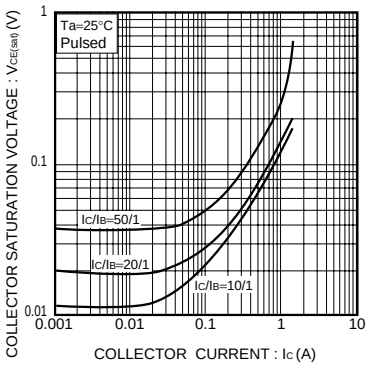


Fig.3 Collector-emitter saturation voltage vs. collector current

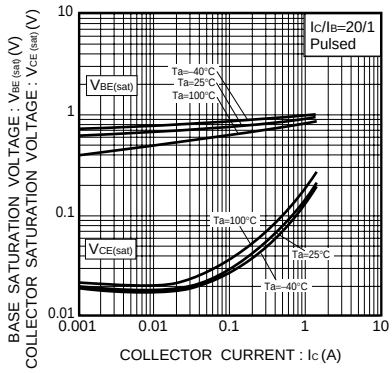


Fig.4 Collector-emitter saturation voltage base-emitter saturation voltage vs. collector current

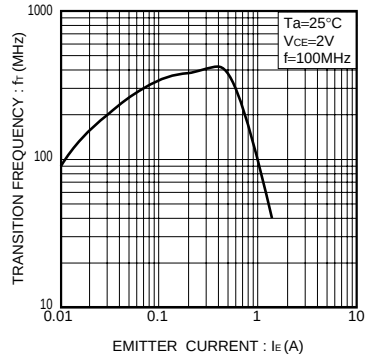


Fig.5 Gain bandwidth product vs. emitter current

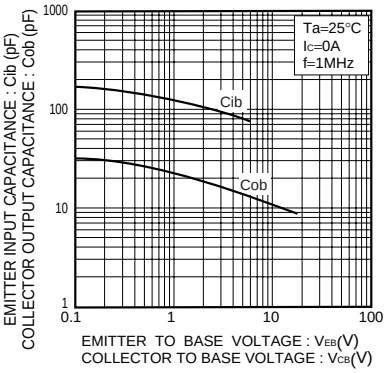


Fig.6 Collector output capacitance vs. collector-base voltage Emitter input capacitance vs. emitter-base voltage

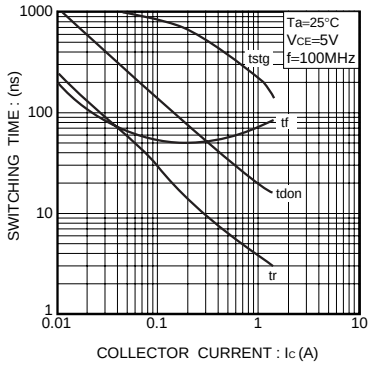


Fig.7 Switching time

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