

Low frequency amplifier transistor

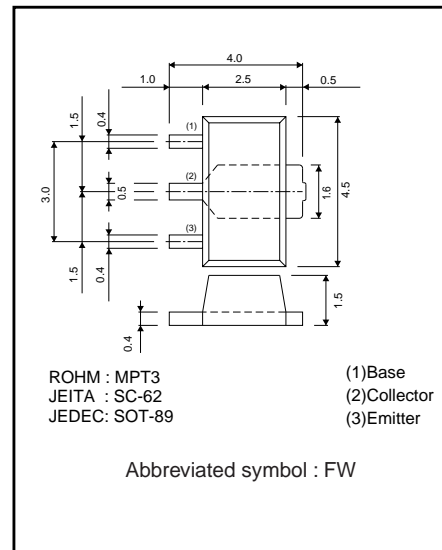
(12V, 2A)

2SD2661

●Features

Low $V_{CE(sat)} \leq 180\text{mV}$
 $(I_c / I_B = 1\text{A} / 50\text{mA})$

●External dimensions (Units : mm)



●Absolute maximum ratings ($T_a=25^\circ\text{C}$)

Parameter	Symbol	Limits	Unit
Collector-base voltage	V_{CB0}	15	V
Collector-emitter voltage	V_{CE0}	12	V
Emitter-base voltage	V_{EB0}	6	V
Collector current	I_c	2	A(DC)
		4	A(Pulse)*
Collector Power dissipation	P_C	0.5	W
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55~+150	$^\circ\text{C}$

* $P_w=1\text{ms}$ Single Pulse

●Packaging specifications

Type	Package	Taping
	Code	T100
	Basic ordering unit (pieces)	1000
2SD2661		○

●Electrical characteristics ($T_a=25^\circ\text{C}$)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CB0}	15	-	-	V	$I_c=10\mu\text{A}$
Collector-emitter breakdown voltage	BV_{CE0}	12	-	-	V	$I_c=1\text{mA}$
Emitter-base breakdown voltage	BV_{EB0}	6	-	-	V	$I_E=10\mu\text{A}$
Collector cutoff current	I_{cB0}	-	-	100	nA	$V_{CB}=15\text{V}$
Emitter cutoff current	I_{EB0}	-	-	100	nA	$V_{EB}=6\text{V}$
DC current transfer ratio	h_{FE}	270	-	680	-	$V_{CE}=2\text{V}$, $I_c=200\text{mA}$
Collector-emitter saturation voltage	$V_{CE(sat)}$	-	90	180	mV	$I_c / I_B=1\text{A} / 50\text{mA}$
Transition frequency	f_T	-	360	-	MHz	$V_{CE}=2\text{V}$, $I_E=-200\text{mA}$, $f=100\text{MHz}$
Output capacitance	C_{ob}	-	20	-	pF	$V_{CB}=10\text{V}$, $I_E=0\text{A}$, $f=1\text{MHz}$

Transistors

●Electrical characteristic curves

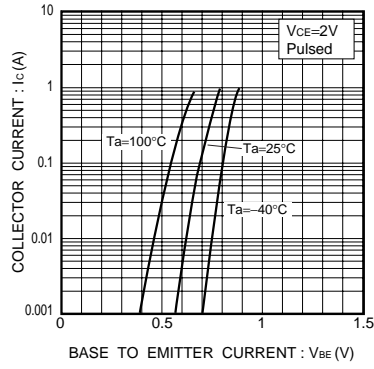


Fig.1 Grounded emitter propagation characteristics

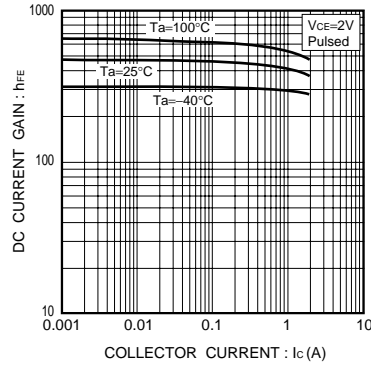


Fig.2 DC current gain vs. collector current

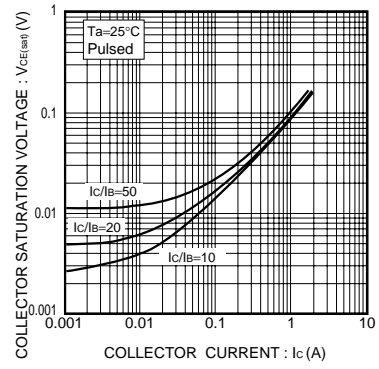


Fig.3 Collector-emitter saturation voltage vs. collector current

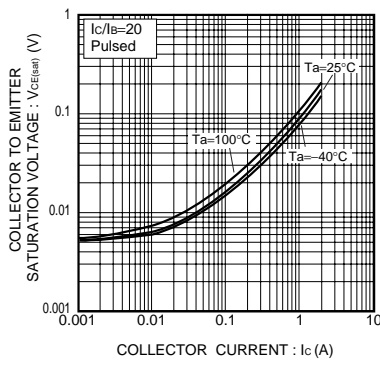


Fig.4 Base-emitter saturation voltage vs. collector current

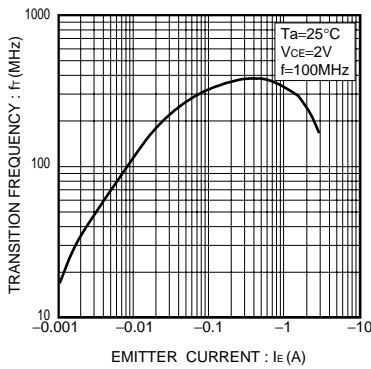


Fig.5 Gain bandwidth product vs. emitter current

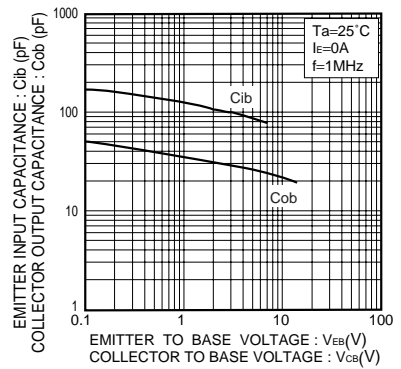


Fig.6 Collector output capacitance vs. collector-base voltage
Emitter input capacitance vs. emitter-base voltage