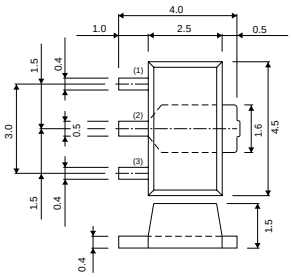
Low frequency amplifier transistor(12V, 2A)

2SD2661

●Features

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

●External dimensions (Unit : mm)



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

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

Abbreviated symbol : FW

●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	2	A(DC)
		4	A(Pulse)*1
Collector Power dissipation	P_C	500	mW
		2 *2	W
Junction temperature	Tj	150	°C
Storage temperature	Tstg	–55 to +150	°C

*1 P_W=1ms Single Pulse
*2 Mounted on a 40×40×0.7mm ceramic substrcte

●Packaging specifications

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

●Electrical characteristics (Ta=25°C)

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

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●Electrical characteristic curves

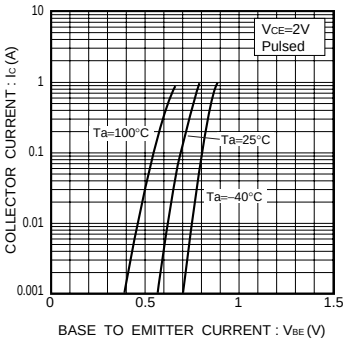

Fig.1 Grounded emitter propagation characteristics

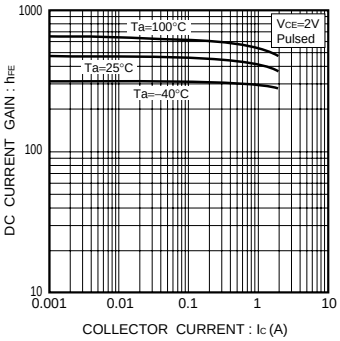

Fig.2 DC current gain vs. collector current

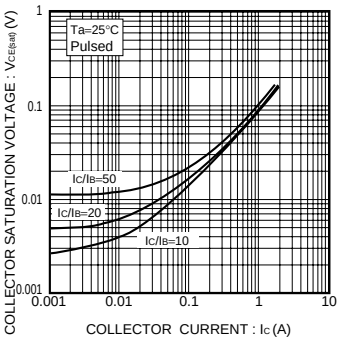

Fig.3 Collector-emitter saturation voltage vs. collector current

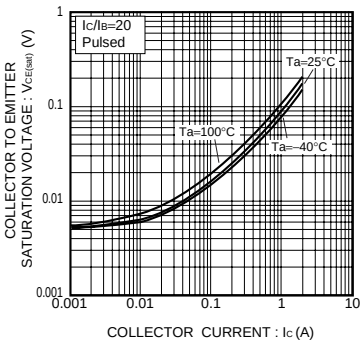

Fig.4 Base-emitter saturation voltage vs. collector current

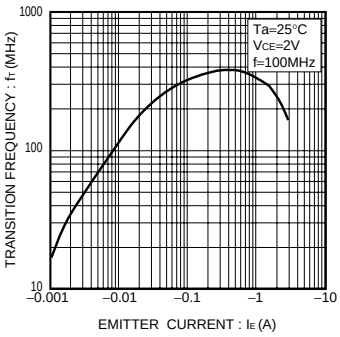

Fig.5 Gain bandwidth product vs. emitter current

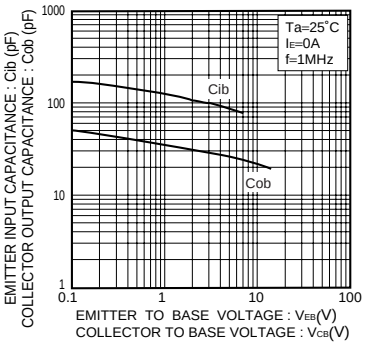

Fig.6 Collector output capacitance vs. collector-base voltage
Emitter input capacitance vs. emitter-base voltage

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