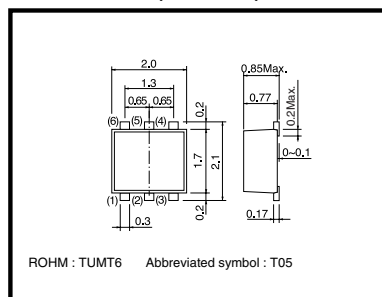


US6T5

Low frequency amplifier
Driver

- 1) A collector current is large.
- 2) $V_{CE(sat)}$: max. -370mV
At $I_C = -1.5\text{A}$ / $I_B = -75\text{mA}$

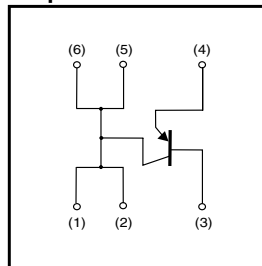


Parameter	Symbol	Limits	Unit
Collector-base voltage	V_{CBO}	-30	V
Collector-emitter voltage	V_{CEO}	-30	V
Emitter-base voltage	V_{EBO}	-6	V
Collector current	I_C	-2	A
	I_{CP}	-4	A ^{*1}
Power dissipation	P_C	400	mW ^{*2}
		1.0	W ^{*3}
Junction temperature	T_j	150	°C
Range of storage temperature	T_{stg}	-55 to +150	°C

*1 Single pulse, Pw=1ms

*2 Each terminal mounted on a recommended

*3 Mounted on a 25mm×25mm×^t0.8mm Ceramic substrate.



Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CBO}	-30	-	-	V	$I_{C0} = -10\mu A$
Collector-emitter breakdown voltage	BV_{CEO}	-30	-	-	V	$I_{C0} = -1mA$
Emitter-base breakdown voltage	BV_{EBO}	-6	-	-	V	$I_{E0} = -10\mu A$
Collector cutoff current	I_{CBO}	-	-	-100	nA	$V_{CB} = -30V$
Emitter cutoff current	I_{EBO}	-	-	-100	nA	$V_{EB} = -6V$
Collector-emitter saturation voltage	$V_{CE(sat)}$	-	-180	-370	mV	$I_{C0} = -1.5A, I_{B0} = -75mA$
DC current gain	h_{FE}	270	-	680	-	$V_{CE} = -2V, I_{C0} = -200mA$
Transition frequency	f_T	-	280	-	MHz	$V_{CE} = -2V, I_{E0} = 200mA, f = 100MHz$
Collector output capacitance	C_{ob}	-	20	-	pF	$V_{CB} = -10V, I_{E0} = 0A, f = 1MHz$

Transistors

●Packaging specifications

Type	package	Taping
	Code	TR
	Basic ordering unit(pieces)	3000
US6T5		○

●Electrical characteristic curves

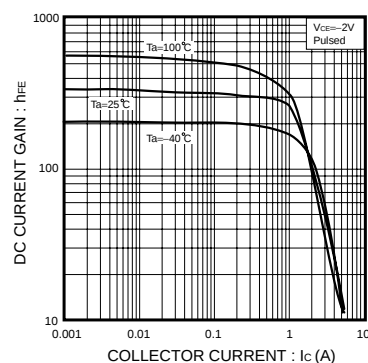


Fig.1 DV current gain vs. collector current

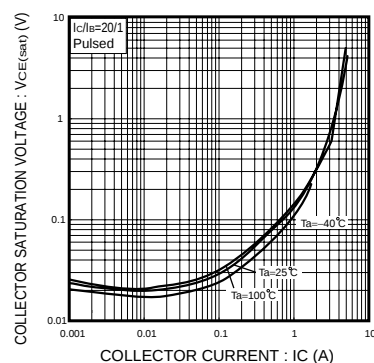


Fig.2 Collector-emitter saturation voltage vs. collector current

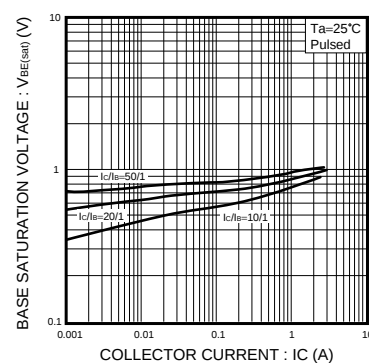


Fig.3 Base-emitter saturation voltage vs. collector current

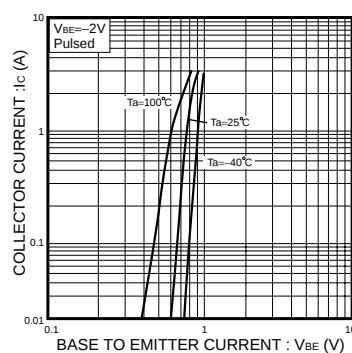


Fig.4 Grounded emitter propagation characteristics

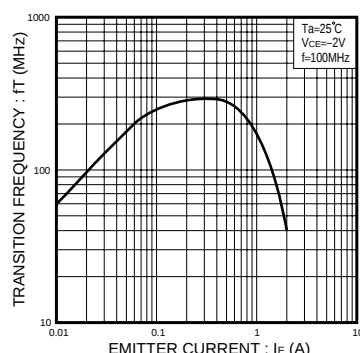


Fig.5 Gain bandwidth product vs. emitter current

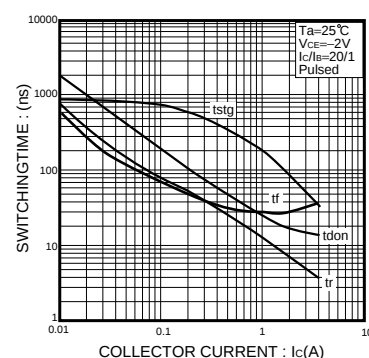
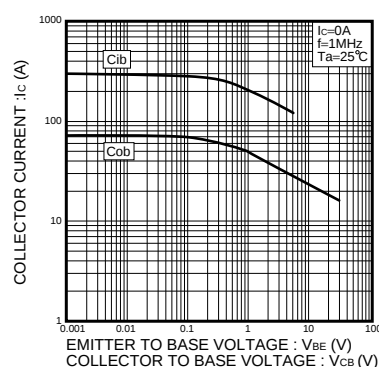


Fig.6 Switching time

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

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