# General purpose amplification (12V, 1.5A) 2SD2674

## Application

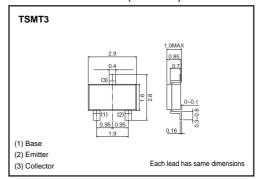
Low frequency amplifier

#### Features

- 1) A collector current is large.
- 2) Collector saturation voltage is low.

 $V_{\text{CE(sat)}}\!\leqq\!200mV$ at Ic = 500mA / IB = 25mA

# ●External dimensions (Unit : mm)



## ● Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-base voltage	Vсво	15	V
Collector-emitter voltage	Vceo	12	V
Emitter-base voltage	Vево	6	V
Collector current	Ic	1.5	Α
Collector current	Іср	3	A *1
Power dissipation	Pc	500	mW
rowei dissipation	FC	1*2	W
Junction temperature	Tj	150	°C
Range of storage temperature	Tstg	-55 to +150	°C

## Packaging specifications

	Package	Taping
Type	Code	TL
	Basic ordering unit (pieces)	3000
2SD2674		0

# ●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 <sub>EB</sub> =6V
Collector-emitter saturation voltage	VCE(sat)	_	85	200	mV	Ic/I <sub>B</sub> =500mA/25mA
DC current gain	hfe	270	_	680	_	VcE/Ic=2V/200mA *
Transition frequency	f⊤	_	400	_	MHz	VcE=2V, IE=-200mA, f=100MHz *
Collector output capacitance	Cob	_	12	_	pF	Vcb=10V, Ie=0A, f=1MHz

\* Pulsed

<sup>\*1</sup> Single pulse, Pw=1ms \*2 Mounted on a 25×25×10.8mm Ceramic substrate

#### Electrical characteristic curves

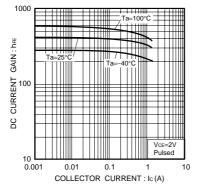


Fig.1 DC current gain vs. collector current

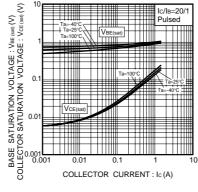


Fig.2 Collector-emitter saturation voltage base-emitter saturation voltage vs. collector current

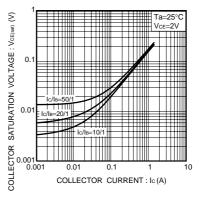


Fig.3 Collector-emitter saturation voltage vs. collector current

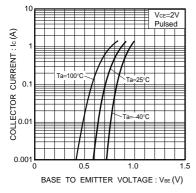


Fig.4 Grounded emitter propagation characteristics

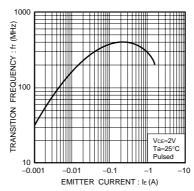


Fig.5 Gain bandwidth product vs. emitter current

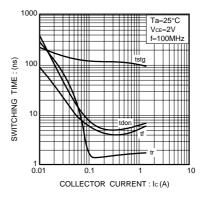


Fig.6 Switching time

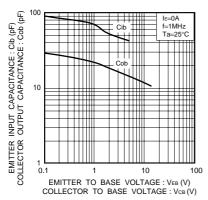


Fig.7 Collector output capacitance vs. collector-base voltage Emitter input capacitance vs. emitter-base voltage

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