# Low frequency amplifier 2SD2657K

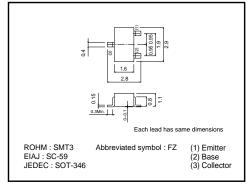
### Application

Low frequency amplifier Driver

### ● Features

- 1) A collector current is large.
- 2) V<sub>CE(sat)</sub> ≤ 350mV At I<sub>C</sub> = 1A / I<sub>B</sub> = 50mA

## ●External dimensions (Units : mm)



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

Parameter	Symbol	Limits	Unit
Collector-base voltage	Vсво	30	V
Collector-emitter voltage	Vceo	30	V
Emitter-base voltage	Vево	6	V
Collector current	lc	1.5	Α
Collector current	Іср	3	Α*
Power dissipation	Pc	200	mW
Junction temperature	Tj	150	°C
Range of storage temperature	Tstg	-55~+150	°C

<sup>\*</sup>Single pulse, Pw=1ms

### Packaging specifications

	Package	Taping
	Code	T146
Туре	Basic ordering unit (pieces)	3000
2SD2657K		0

# ●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions
Collector-base breakdown voltage	ВУсво	30	-	_	V	Ic=10μA
Collector-emitter breakdown voltage	BVceo	30	-	_	V	Ic=1mA
Emitter-base breakdown voltage	ВУево	6	-	_	V	Iε=10μA
Collector cutoff current	Ісво	_	-	100	nA	Vcb=30V
Emitter cutoff current	ІЕВО	_	-	100	nA	V <sub>EB</sub> =6V
Collector-emitter saturation voltage	VCE(sat)	_	160	350	mV	Ic=1A, Iв=50mA
DC current gain	hfe	270	-	680	-	Vce=2V, Ic=100mA*
Transition frequency	f⊤	_	330	_	MHz	Vce=2V, Ie=-100mA, f=100MHz*
Corrector output capacitance	Cob	_	11	_	pF	Vcb=10V, Ie=0A, f=1MHz

<sup>\*</sup> Pulsed

### Electrical characteristic curves

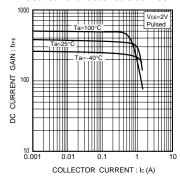


Fig.1 DC current gain vs. collector current

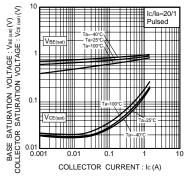


Fig.2 Collector-emitter saturation voltage base-emitter saturation voltage vs. collector current

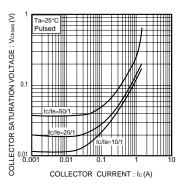


Fig.3 Collector-emitter saturation voltage vs. collector current

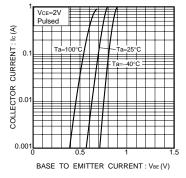


Fig.4 Grounded emitter propagation characteristics

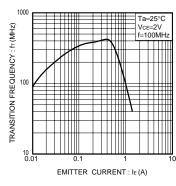


Fig.5 Gain bandwidth product vs. emitter current

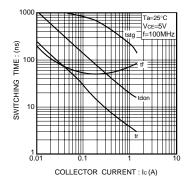


Fig.6 Switching time

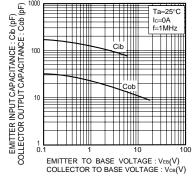


Fig.7 Collector output capacitance vs. collector-base voltage Emitter input capacitance vs. emitter-base voltage

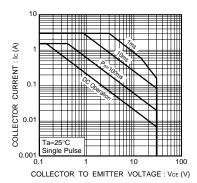


Fig.8 Safe Operating Area

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