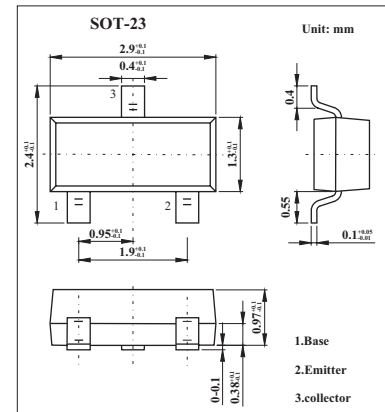


NPN Epitaxial Silicon Transistor

2SC3663

■ Features

- Low-voltage, low-current, low-noise and high-gain
NF = 3.0 dB TYP. @V_{CE} = 1 V, I_c = 250 PA, f = 1.0 GHz
GA = 3.5 dB TYP. @V_{CE} = 1 V, I_c = 250 PA, f = 1.0 GHz
- Ideal for battery drive of pagers, compact radio equipment cordless phones, etc.
- Gold electrode gives high reliability.
- Mini mold package, ideal for hybrid ICs.



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector to base voltage	V _{CB0}	15	V
Collector to emitter voltage	V _{CEO}	8	V
Emitter to base voltage	V _{EB0}	2	V
Collector current	I _c	5	mA
Total power dissipation	P _T	50	mW
Junction temperature	T _j	150	°C
Storage temperature range	T _{stg}	-65 to +150	°C

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector Cut-off Current	I _{CB0}	V _{CB} = 5 V, I _E = 0			0.1	μA
Emitter Cut-off Current	I _{EB0}	V _{EB} = 1 V, I _c = 0			0.1	μA
DC Current Gain	h _{FE}	V _{CE} = 1 V, I _c = 250 PA, pulse	50	100	250	
Gain Bandwidth Product	f _T	V _{CE} = 1 V, I _c = 1 mA		4		GHz
Insertion Power Gain	S _{21e} ²	V _{CE} = 1 V, I _c = 1 mA, f = 1 GHz	4.0	6.5		dB
Maximum Available Gain	MAG	V _{CE} = 1 V, I _c = 1 mA, f = 1 GHz		12.5		dB
Noise Figure	NF	V _{CE} = 1 V, I _c = 250 μA, f = 1.0 GHz		3.0	4.5	dB
Associated Power Gain	GA	V _{CE} = 1 V, I _c = 250 μA, f = 1.0 GHz		3.5		dB
Collector Capacitance	C _{ob}	V _{CB} = 1 V, I _E = 0, f = 1.0 MHz		0.4	0.6	pF

■ Marking

Marking	R62