

2SC3127

Silicon NPN Epitaxial

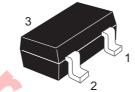
REJ03G0711-0300 (Previous ADE-208-1080A) Rev.3.00 Aug.10.2005

Application

UHF/VHF wide band amplifier

Outline

RENESAS Package code: PLSP0003ZB-A (Package name: MPAK)



- 1. Emitter
- 2. Base
- 3. Collector

Marking for 2SC3127 is "ID-". Note:

Absolute Maximum Ratings

 $(Ta = 25^{\circ}C)$

Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	20	V
Collector to emitter voltage	V _{CEO}	12	V
Emitter to base voltage	V_{EBO}	3	V
Collector current	Ic	50	mA
Collector power dissipation	Pc	150	mW
Junction temperature	Tj	150	°C
Storage temperature	Tstg	-55 to +150	°C

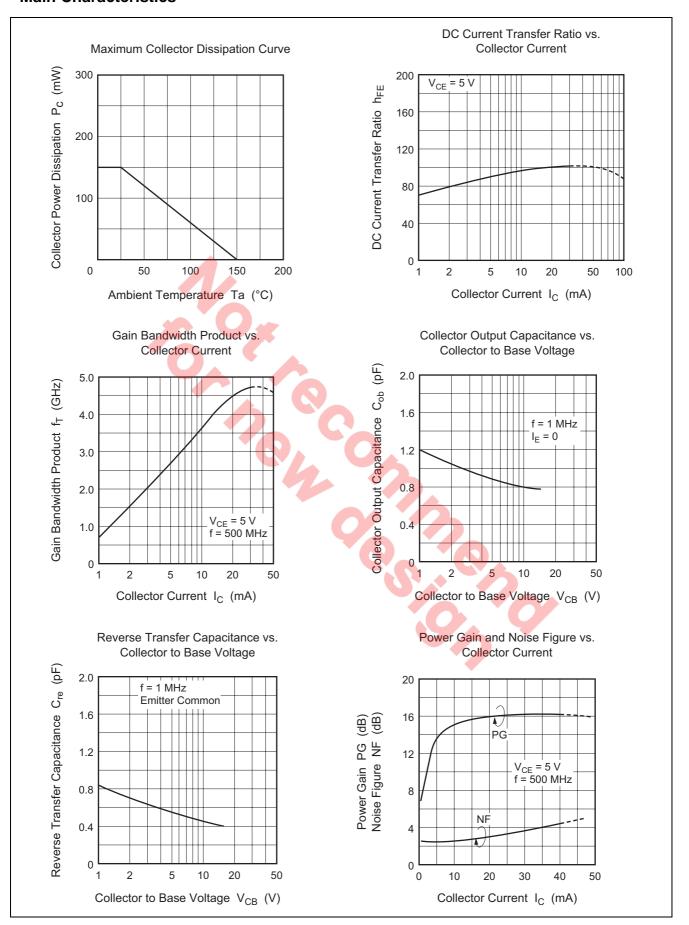
Electrical Characteristics

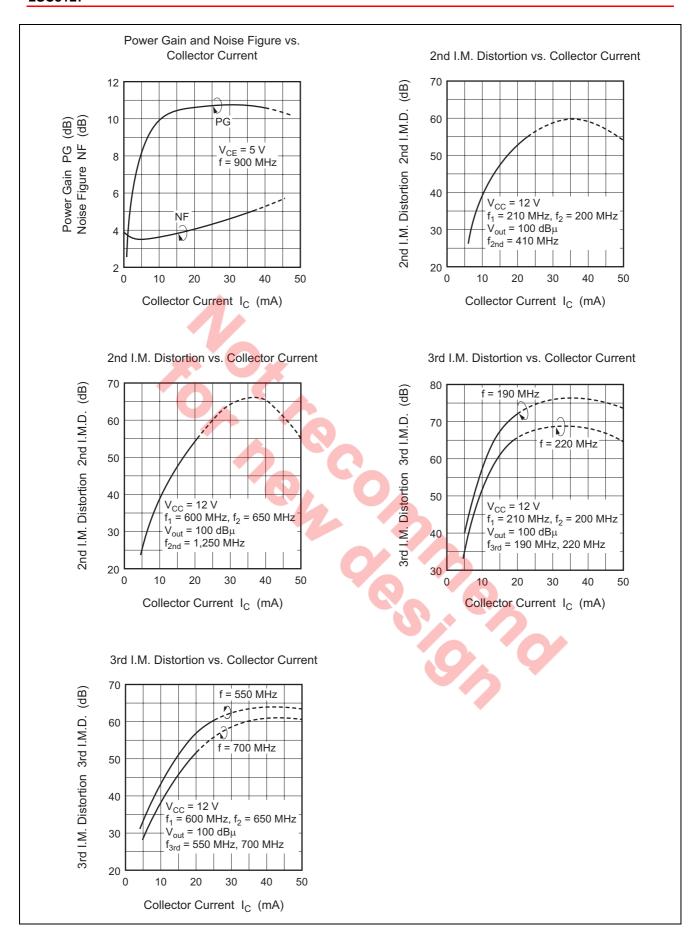
 $(Ta = 25^{\circ}C)$

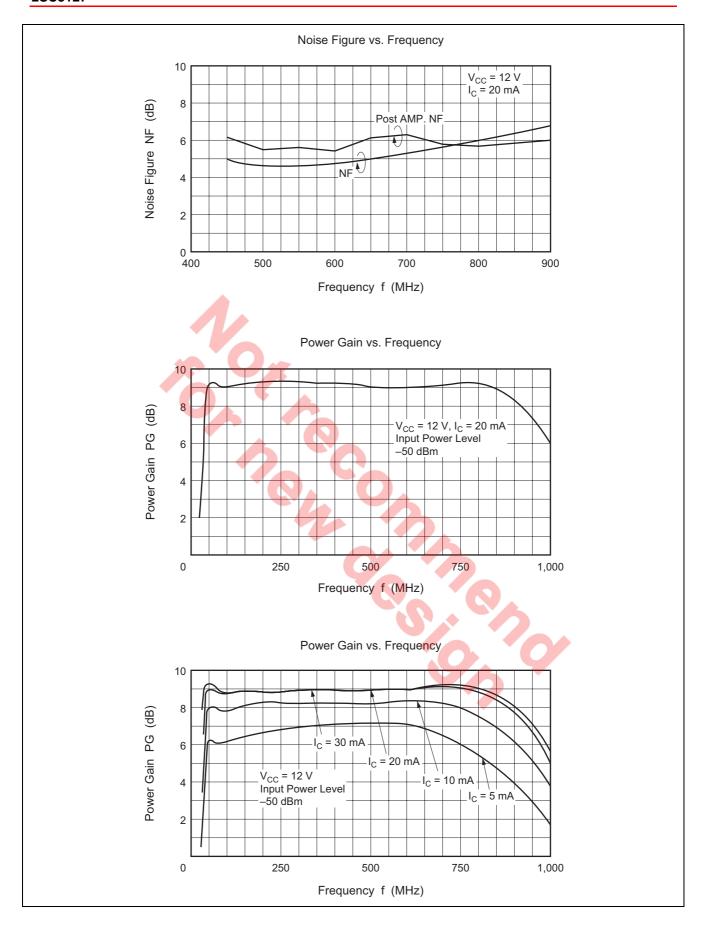
Item	Symbol	Min	Тур	Max	Unit	Test conditions
Collector to base breakdown voltage	V _{(BR)CBO}	20	_	_	V	$I_C = 10 \mu A, I_E = 0$
Collector to emitter breakdown voltage	V _{(BR)CEO}	12	_	_	V	$I_C = 1 \text{ mA}, R_{BE} = \infty$
Emitter cutoff current	I _{EBO}	_	_	10	μΑ	$V_{EB} = 3 \text{ V}, I_{C} = 0$
Collector cutoff current	I _{CBO}	_	_	0.5	μΑ	$V_{CB} = 12 \text{ V}, I_{E} = 0$
DC current transfer ratio	h _{FE}	30	90	200		$V_{CE} = 5 \text{ V}, I_{C} = 20 \text{ mA}$
Collector output capacitance	Cob	_	0.9	1.5	pF	$V_{CB} = 5 \text{ V}, I_{E} = 0, f = 1 \text{ MHz}$
Gain bandwidth product	f _T	3.5	4.5	_	GHz	$V_{CE} = 5 \text{ V}, I_{C} = 20 \text{ mA}$
Power gain	PG	_	10.5	_	dB	$V_{CE} = 5 \text{ V}, I_{C} = 20 \text{ mA},$ f = 900 MHz
Noise figure	NF	_	2.2	_	dB	V _{CE} = 5 V, I _C = 5 mA, f = 900 MHz

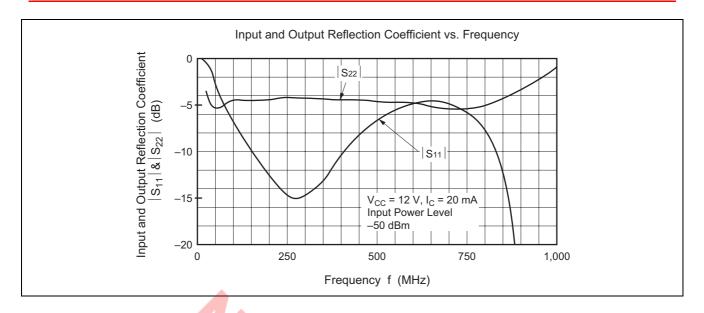


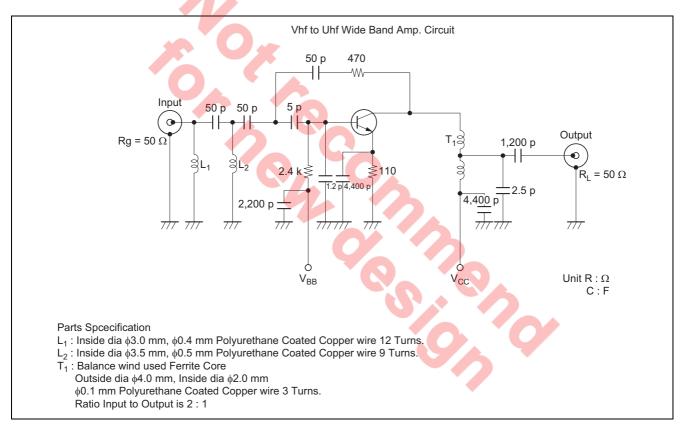
Main Characteristics



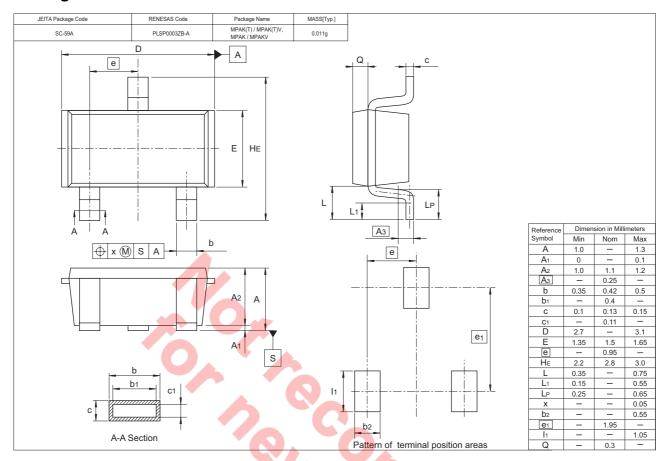








Package Dimensions



Ordering Information

Part Name	Quantity	Shipping Container
2SC3127ID-TL-E	3000	φ 178 mm Reel, 8 mm Emboss Taping

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