

2SC4591

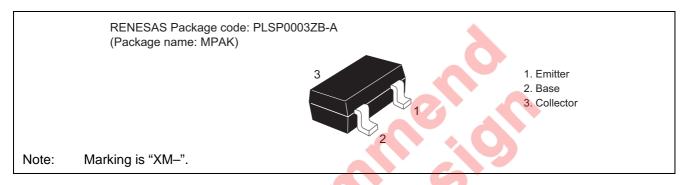
Silicon NPN Epitaxial

REJ03G0728-0300 (Previous ADE-208-1111A) Rev.3.00 Aug.10.2005

Application

UHF / VHF wide band amplifier

Outline



Absolute Maximum Ratings

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

Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	15	V
Collector to emitter voltage	V _{CEO}	9	V
Emitter to base voltage	V _{EBO}	1.5	V
Collector current	Ic	50	mA
Collector power dissipation	Pc	150	mW
Junction temperature	Tj	150	°C
Storage temperature	Tstg	-55 to +150	°C

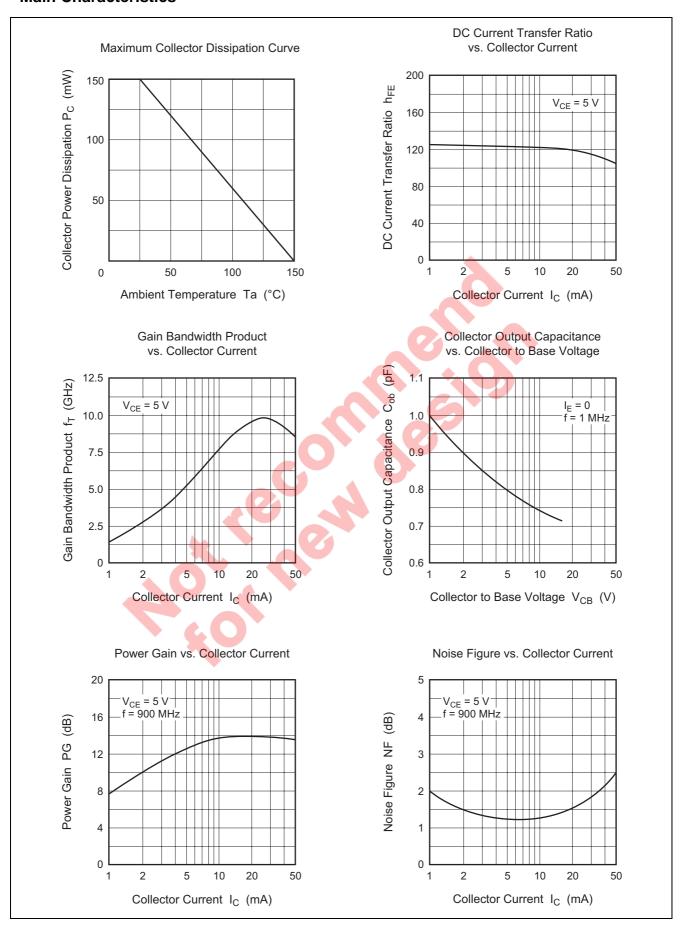
Electrical Characteristics

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

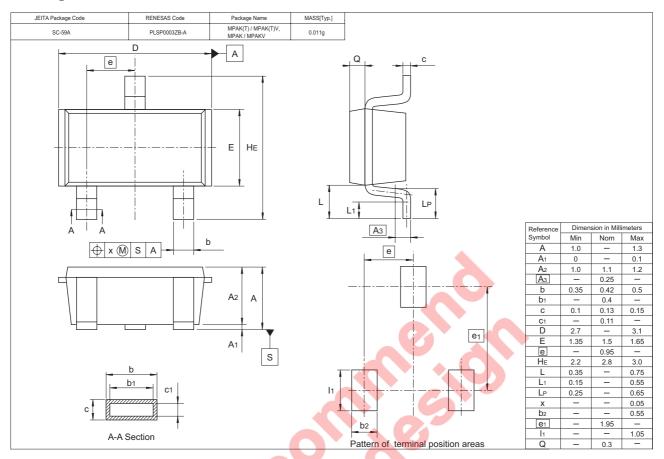
Item	Symbol	Min	Тур	Max	Unit	Test conditions
Collector to base breakdown voltage	V _{(BR)CBO}	15	_	_	V	$I_C = 10 \mu A, I_E = 0$
Collector cutoff current	I _{CBO}	_	_	1	μΑ	$V_{CB} = 12 \text{ V}, I_{E} = 0$
	I _{CEO}	_	_	1	mA	V _{CE} = 9 V, R _{BE} = ∞
Emitter cutoff current	I _{EBO}	_	_	10	μΑ	$V_{EB} = 1.5 \text{ V}, I_C = 0$
DC current transfer ratio	h _{FE}	40	120	250	_	$V_{CE} = 5 \text{ V}, I_{C} = 20 \text{ mA}$
Collector output capacitance	Cob	_	0.8	1.5	pF	$V_{CB} = 5 \text{ V}, I_{E} = 0,$
						f = 1MHz
Gain bandwidth product	f⊤	6.5	9.0		GHz	$V_{CE} = 5 \text{ V}, I_{C} = 20 \text{ mA}$
Power gain	PG	9.5	12.5	_	dB	$V_{CE} = 5 \text{ V}, I_{C} = 20 \text{ mA},$
						f = 900 MHz
Noise figure	NF	_	1.2	2.5	dB	$V_{CE} = 5 \text{ V}, I_{C} = 5 \text{ mA},$
						f = 900 MHz



Main Characteristics



Package Dimensions



Ordering Information

Part Name	Quantity		Shipping Container
2SC4591XM-TL-E	3000	φ 17	78 mm Reel, 8 mm Emboss Taping

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