

isc Silicon NPN RF Transistor
2SC4807
DESCRIPTION

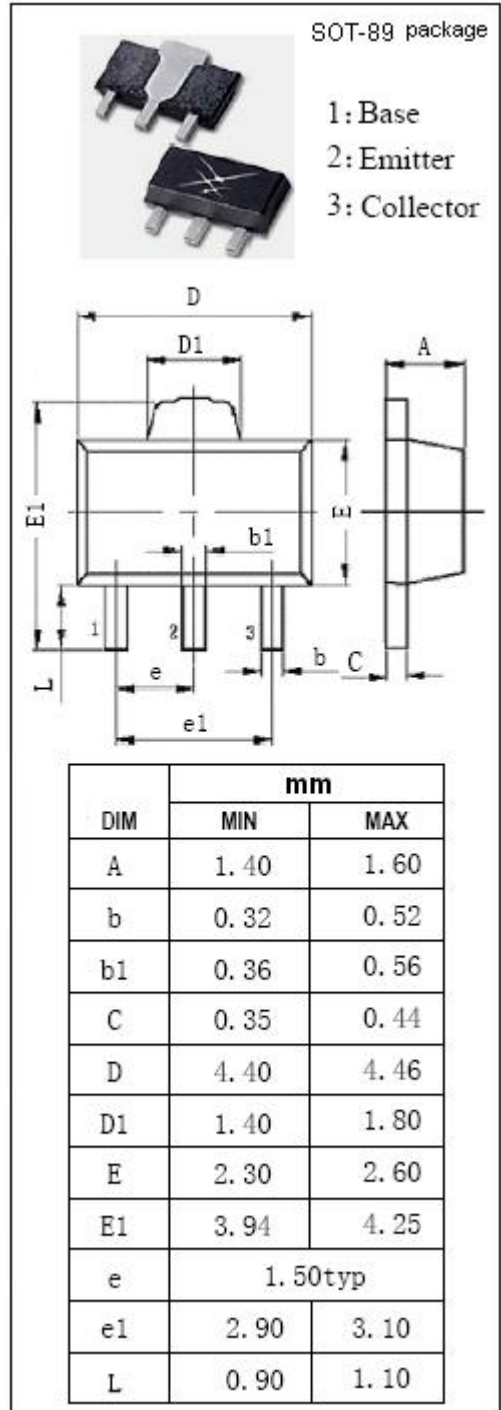
- High Gain-Bandwidth Product
 $f_T = 4.4 \text{ GHz TYP.}$
- High Output Power
 1 dB Power compression point $P_{cp} = 24 \text{ dBm TYP.}$
 @ $V_{CE} = 5V$, $I_C = 100 \text{ mA}$, $f = 900 \text{ MHz}$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for VHF ~ UHF wide band amplifier applications.

ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	20	V
V_{CEO}	Collector-Emitter Voltage	15	V
V_{EBO}	Emitter-Base Voltage	2	V
I_C	Collector Current-Continuous	0.2	A
P_C	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	0.8	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



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ELECTRICAL CHARACTERISTICS

 T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CBO}	Collector-Base Breakdown Voltage	I _C = 10 μ A; I _E = 0	20			V
I _{CBO}	Collector Cutoff Current	V _{CB} = 15V; I _E = 0			1	μ A
I _{CEO}	Collector Cutoff Current	V _{CE} = 15V; R _{BE} = ∞			1	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 2V; I _C = 0			10	μ A
h _{FE}	DC Current Gain	I _C = 100mA ; V _{CE} = 5V	50		250	
f _T	Current-Gain—Bandwidth Product	I _C = 100mA ; V _{CE} = 5V	3.0	4.4		GHz
C _{OB}	Output Capacitance	I _E = 0 ; V _{CB} = 5V; f= 1.0MHz		2.8	4.0	pF
PG	Power Gain	I _C = 100mA ; V _{CE} = 5V; f= 900MHz	5.0	7.0		dB
NF	Noise Figure	I _C = 20mA ; V _{CE} = 5V; f= 900MHz		2.5	4.0	dB

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