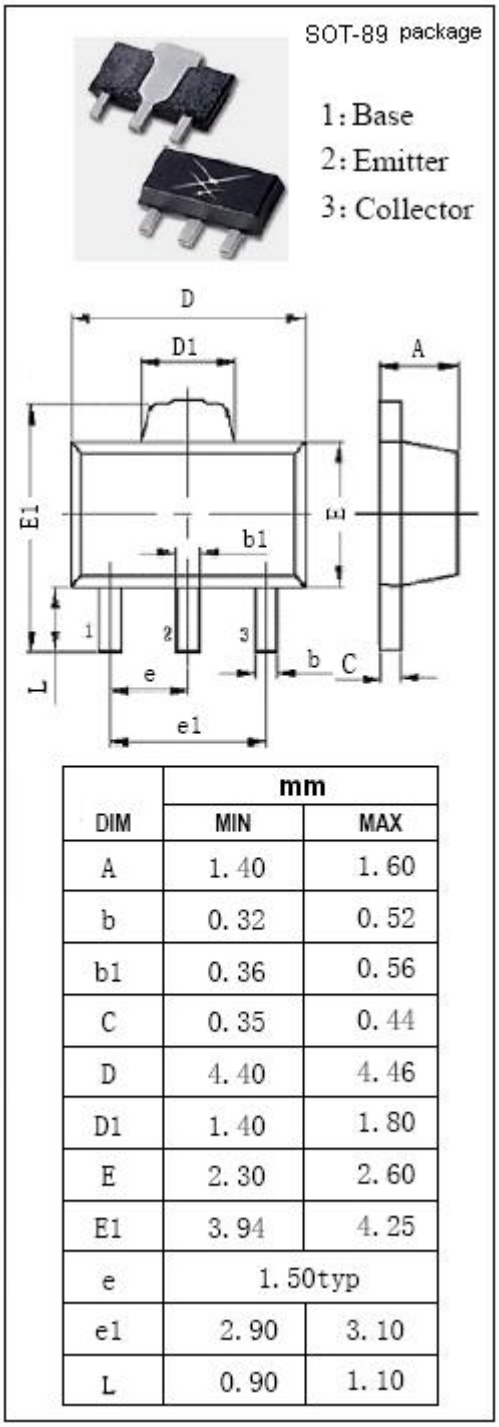
isc Silicon NPN RF Transistor 2SC4807



DIM	mm MIN	MAX
A	1.40	1.60
b	0.32	0.52
b1	0.36	0.56
C	0.35	0.44
D	4.40	4.46
D1	1.40	1.80
E	2.30	2.60
E1	3.94	4.25
e	1.50typ	
e1	2.90	3.10
L	0.90	1.10

DESCRIPTION

- High Gain-Bandwidth Product
  f_T= 4.4 GHz TYP.
- High Output Power
  1 dB Power compression point P_{cp} = 24 dBm TYP.
  @ V_{CE} = 5V , I_C = 100 mA , f = 900 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℃)

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℃	0.8	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	I_C= 10μA; I_E= 0	20			V
I_{CBO}	Collector Cutoff Current	V_{CB}= 15V; I_E= 0			1	μA
I_{CEO}	Collector Cutoff Current	V_{CE}= 15V; R_{BE}= ∞			1	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 2V; I_C= 0			10	μA
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