isc Silicon NPN RF Transistor 2SC4247

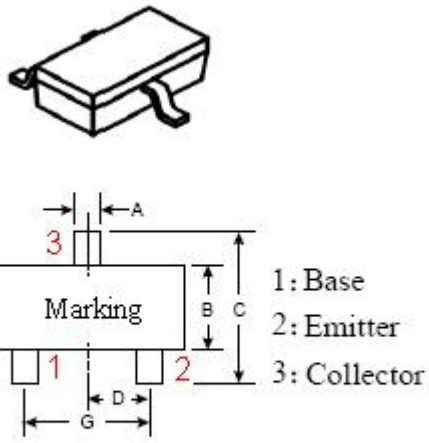
DESCRIPTION

- High Current-Gain Bandwidth Product
  f_T= 4 GHz TYP. @V_{CE} = 10 V, I_C = 10 mA
- Low Noise
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for TV tuner , UHF oscillator applications.

SOT-323 package



DIM	mm	
	MIN	MAX
A	0.30	0.40
B	1.15	1.35
C	2.00	2.40
D	0.65	
H	1.80	2.20
K	0.80	1.00
M	0.10	0.25

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	20	V
V_{CEO}	Collector-Emitter Voltage	12	V
V_{EBO}	Emitter-Base Voltage	3	V
I_C	Collector Current-Continuous	30	mA
I_B	Base Current-Continuous	15	mA
P_C	Collector Power Dissipation @T_C=25℃	0.1	W
T_J	Junction Temperature	125	℃
T_{stg}	Storage Temperature Range	-55~125	℃

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
I_{CBO}	Collector Cutoff Current	V_{CB}= 10V; I_E= 0			0.1	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 2V; I_C= 0			1.0	μA
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= 1mA ; I_B= 0	12			V
h_{FE}	DC Current Gain	I_C= 5mA ; V_{CE}= 10V	35		130	
f_T	Current-Gain—Bandwidth Product	I_C= 10mA;V_{CE}= 10V; f= 1000MHz	2.6	4		GHz
C_{OB}	Output Capacitance	I_E= 0 ; V_{CB}= 10V; f= 1MHz		1.05	1.35	pF
$r_{bb'} \cdot C_C$	Base Time Constant	I_C= 5mA ; V_{CB}= 10V;f= 30MHz		4.5	9	ps