isc Silicon NPN RF Transistor 2SC3841

DESCRIPTION

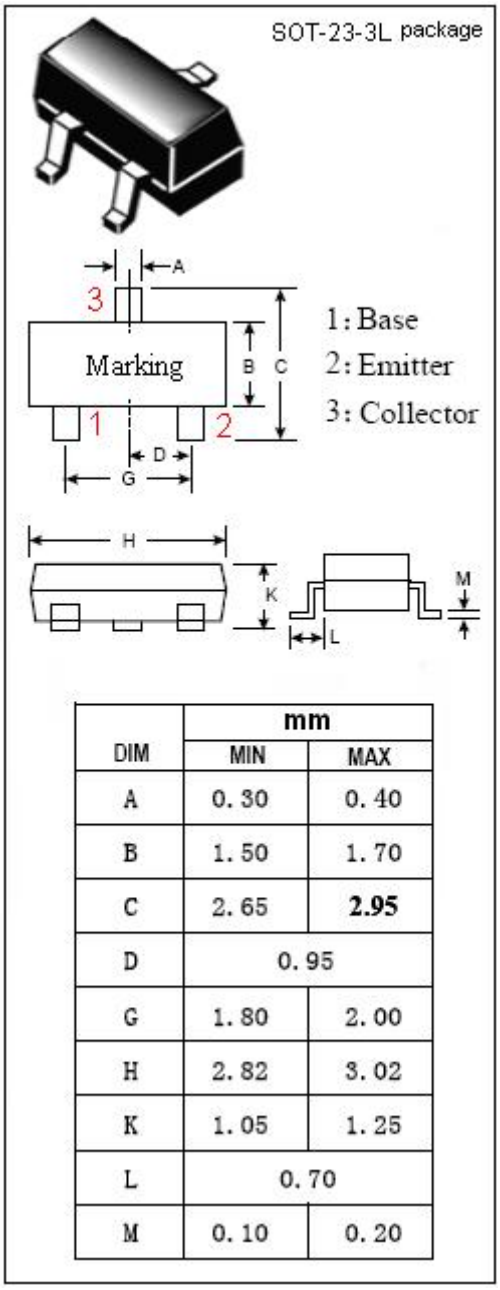
- High Current-Gain Bandwidth Product:
  f_T = 4 GHz TYP.
- Low Output Capacitance-
  C_{OB} = 1.5 pF TYP.
- Low Base Time Constant:
  $r_{bb'} \cdot C_C$= 4.0 ps TYP.
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for use as UHF oscillators and a UHF mixer in a tuner of a TV receiver.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	25	V
V_{CEO}	Collector-Emitter Voltage	12	V
V_{EBO}	Emitter-Base Voltage	3	V
I_C	Collector Current-Continuous	30	mA
P_C	Collector Power Dissipation @T_C=25℃	0.2	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



DIM	mm MIN	MAX
A	0.30	0.40
B	1.50	1.70
C	2.65	2.95
D	0.95	
G	1.80	2.00
H	2.82	3.02
K	1.05	1.25
L	0.70	
M	0.10	0.20

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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
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 10mA ; I_B= 1mA			0.5	V
h_{FE}	DC Current Gain	I_C= 5mA ; V_{CE}= 10V	40		200	
f_T	Current-Gain—Bandwidth Product	I_E= -5mA;V_{CE}= 10V	2.5	4.0		GHz
C_{OB}	Output Capacitance	I_E= 0 ; V_{CB}= 10V; f= 1MHz		0.85	1.5	pF
$r_{bb'} \cdot C_C$	Base Time Constant	I_E= -5mA ; V_{CE}= 10V;f= 31.9MHz		4	10	ps

◆ **h_{FE} Classification**

Class	T62/P	T63/Q	T64/R
Marking	T62	T63	T64
h_{FE}	40-80	60-120	100-200