isc Silicon NPN RF Transistor 2SC5006

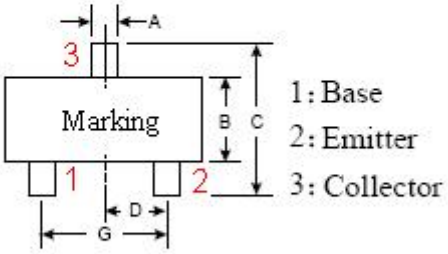
DESCRIPTION

- Low Voltage Use
- Ultra Super Mini Mold Package
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for use in low noise and small signal amplifiers from VHF band to UHF band

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	100	mA
P_C	Collector Power Dissipation @T_C=25℃	125	mW
T_J	Max.Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-60~150	℃

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified, Pulse Measurement PW ≤ 350 μs, Duty Cycle ≤ 2 %

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
I_{CBO}	Collector Cutoff Current	V_{CB}= 10V; I_E= 0			1	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 1V; I_C= 0			1	μA
h_{FE}	DC Current Gain	I_C= 7mA ; V_{CE}= 3V	80		160	
f_T	Current-Gain—Bandwidth Product	I_C= 7mA ; V_{CE}= 3V	3.0			GHz
C_{re}	Feed-Back Capacitance	I_E= 0 ; V_{CB}= 3V;f= 1.0MHz			1.5	pF
$\|S_{21e}\|^2$	Insertion Power Gain	I_C= 7mA ; V_{CE}= 3V;f= 1.0GHz	7			dB
NF	Noise Figure	I_C= 7mA ; V_{CE}= 3V;f= 1.0GHz			2.5	dB