

INCHANGE Semiconductor

isc RF Product Specification

isc Silicon NPN RF Transistor

2SC2845

DESCRIPTION

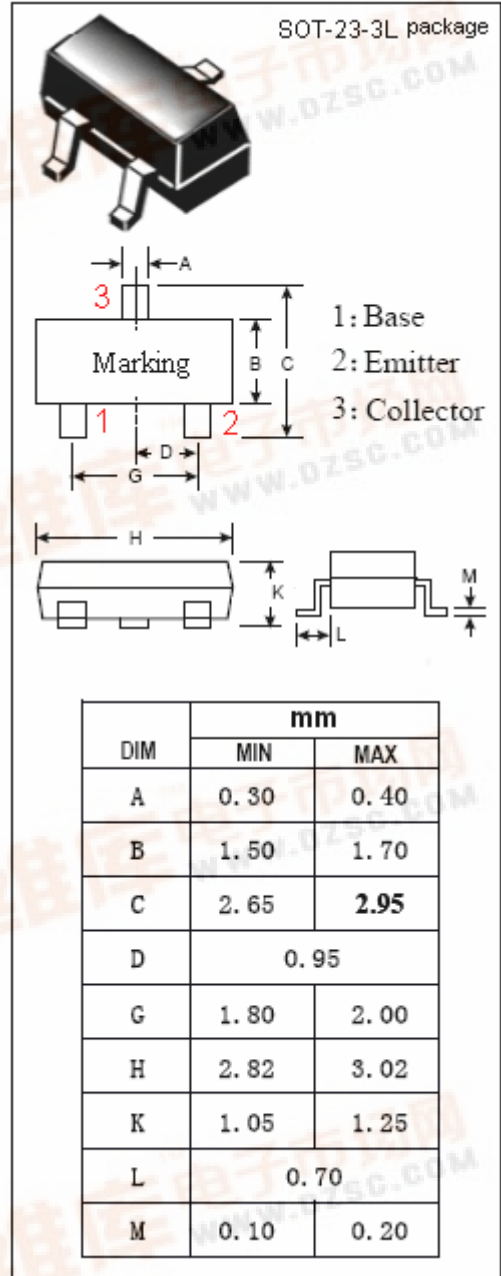
- Low Noise
- High Gain
- High Current-Gain Bandwidth Product

APPLICATIONS

- Designed for use in UHF low noise amplifier.

ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CBO}	Collector-Base Voltage	25	V
V _{CEO}	Collector-Emitter Voltage	12	V
V _{EBO}	Emitter-Base Voltage	2.5	V
I _C	Collector Current-Continuous	70	mA
P _C	Collector Power Dissipation @T _C =25°C	0.2	W
T _J	Junction Temperature	125	°C
T _{stg}	Storage Temperature Range	-55~125	°C



isc Silicon NPN RF Transistor

2SC2845

ELECTRICAL CHARACTERISTICS

 $T_C=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
I_{CBO}	Collector Cutoff Current	$V_{CB}= 15V; I_E= 0$			0.1	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB}= 2V; I_C= 0$			0.1	μA
h_{FE}	DC Current Gain	$I_C= 20mA; V_{CE}= 10V$	40		200	
f_T	Current-Gain—Bandwidth Product	$I_E= -20mA; V_{CE}= 10V$		4.5		GHz
C_{OB}	Output Capacitance	$I_E= 0; V_{CB}= 10V; f= 1.0MHz$		1.0	1.5	pF
$ S_{21e} ^2$	Insertion Power Gain	$I_C= 20mA; V_{CE}= 10V; f= 0.8GHz$	8.5	10.5		dB
GUM	Power Gain		10	12		dB
NF	Noise Figure	$I_C= 5mA; V_{CE}= 10V; f= 0.8GHz$		1.8	3	dB