

isc Silicon NPN RF Transistor

2SC2845

DESCRIPTION

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

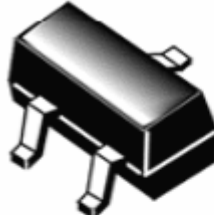
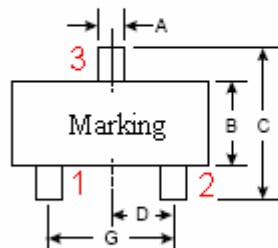
APPLICATIONS

- Designed for use in UHF low noise amplifier.

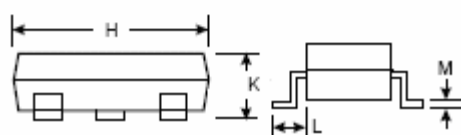
ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

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

SOT-23-3L package

1: Base
2: Emitter
3: Collector



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

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

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