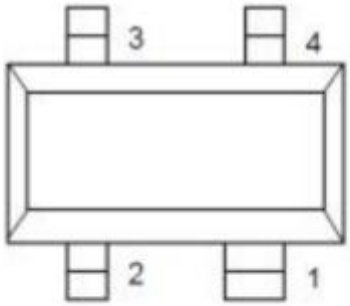
isc Silicon NPN RF Transistor BFG425W

DESCRIPTION

- High Power Gain
- High Current Gain Bandwidth Product
- Low Noise Figure
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



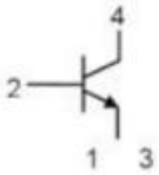
APPLICATIONS

- Designed for use in RF wideband amplifiers and oscillators.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	10	V
V_{CEO}	Collector-Emitter Voltage	4.5	V
V_{EBO}	Emitter-Base Voltage	1	V
I_C	Collector Current-Continuous	30	mA
I_B	Base Current-Continuous	6	mA
P_C	Collector Power Dissipation	135	mW
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-65~150	℃

PIN	DESCRIPTION
1	emitter
2	base
3	emitter
4	collector



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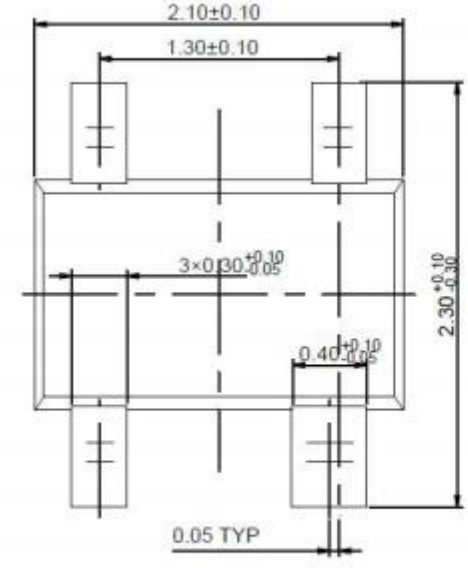
ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= 1mA ; I_B= 0	4.5			V
I_{CBO}	Collector Cutoff Current	V_{CB}= 4.5V; I_E= 0			100	nA
h_{FE}	DC Current Gain	I_C= 25mA ; V_{CE}= 2V	50	100	150	
f_T	Transition frequency	I_C= 25mA ; V_{CE}= 2V; f= 2GHz		25		GHz
NF	Noise Figure	I_C= 2mA ; V_{CE}= 2V; f= 900MHz		0.8		dB
NF	Noise Figure	I_C= 2mA ; V_{CE}= 2V; f= 2GHz		1.2		dB
$\|S_{21e}\|^2$	Insertion Power Gain	I_C= 30mA ; V_{CE}= 8V; f= 2GHz		17		dB



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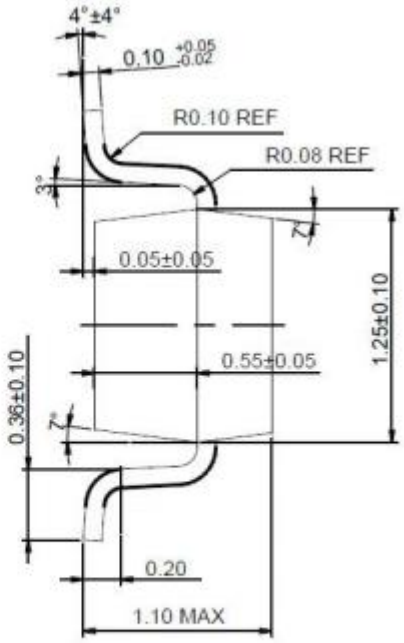

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