isc Silicon NPN RF Transistor 2SC3582

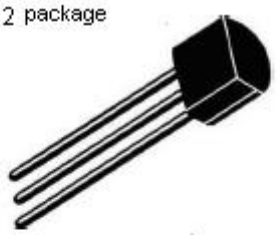
DESCRIPTION

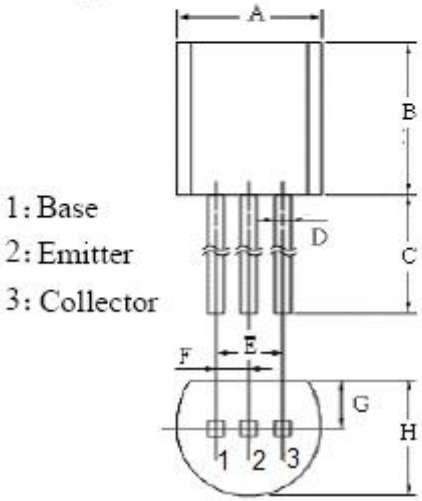
- Low Noise Figure, High Gain, and High Current Capability Achieve a Very Wide Dynamic Range and Excellent Linearity.
- Low Noise and High Gain
  NF = 1.2 dB TYP. @f = 1.0 GHz
  Ga = 12 dB TYP. @f = 1.0 GHz
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

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

TO-92 package





DIM	mm	
	MIN	MAX
A	4.33	4.83
B	4.33	4.83
C	14.0	15.0
D	0.36	0.56
E	2.54	
F	1.27	
G	0. 92	1. 12
H	3.40	3.60

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	20	V
V_{CEO}	Collector-Emitter Voltage	10	V
V_{EBO}	Emitter-Base Voltage	1.5	V
I_C	Collector Current-Continuous	65	mA
P_C	Collector Power Dissipation @T_C=25℃	0.6	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-65~150	℃

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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			1.0	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 1V; I_C= 0			1.0	μA
h_{FE}	DC Current Gain	I_C= 20mA ; V_{CE}= 8V	50		250	
f_T	Current-Gain—Bandwidth Product	I_C= 20mA ; V_{CE}= 8V		8		GHz
C_{re}	Feed-Back Capacitance	I_E= 0 ; V_{CB}= 10V;f= 1.0MHz		0.4	0.9	pF
$\|S_{21e}\|^2$	Insertion Power Gain	I_C= 20mA ; V_{CE}= 8V;f= 1.0GHz	9	11		dB
MAG	Maximum Available Gain	I_C= 20mA ; V_{CE}= 8V;f= 1.0GHz		13		dB
NF	Noise Figure	I_C= 7mA ; V_{CE}= 8V;f= 1.0GHz		1.2	2.5	dB

◆ h_{FE} Classification

Class	K
Marking	K
h_{FE}	50-250

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