

isc Silicon NPN RF Transistor

2SC2026

DESCRIPTION

- Low Noise
 $NF = 3.0\text{dB TYP. @ } f = 500\text{MHz}$
- High Power Gain
 $G_{pe} = 15\text{dB TYP. @ } f = 500\text{MHz}$
- High Gain Bandwidth Product
 $f_T = 2.0\text{GHz TYP.}$

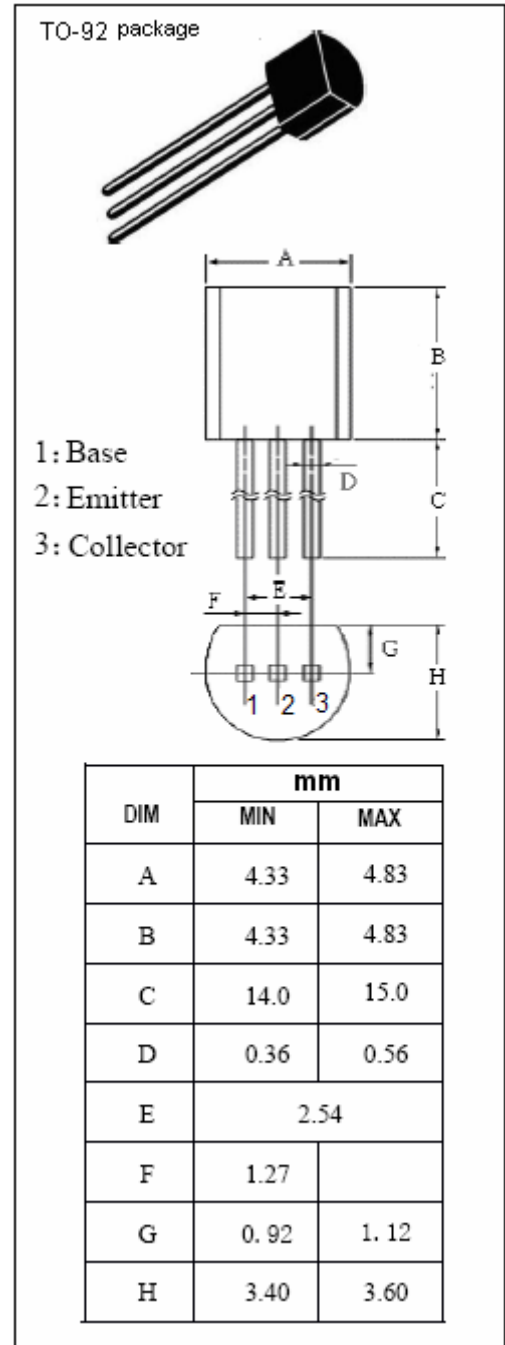
APPLICATIONS

- Designed for use in low noise amplifiers in the VHF~UHF band.

ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	30	V
V_{CEO}	Collector-Emitter Voltage	14	V
V_{EBO}	Emitter-Base Voltage	3	V
I_C	Collector Current-Continuous	50	mA
P_C	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	0.25	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$

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isc Silicon NPN RF Transistor**2SC2026****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	$I_C= 10\text{mA}; V_{CE}= 10\text{V}$	25		200	
f_T	Current-Gain—Bandwidth Product	$I_C= 10\text{mA}; V_{CE}= 10\text{V}$	15	2.0		GHz
C_{OB}	Output Capacitance	$I_E= 0; V_{CB}= 10\text{V}; f= 1.0\text{MHz}$		0.75	1.1	pF
G_{pe}	Power Gain	$V_{CE}= 10\text{V}, I_C= 10\text{mA}; f= 500\text{MHz}$	13	15		dB
NF	Noise Figure	$V_{CE}= 10\text{V}, I_C= 3\text{mA}; f= 500\text{MHz}; R_G= 50\Omega$		3	4	dB