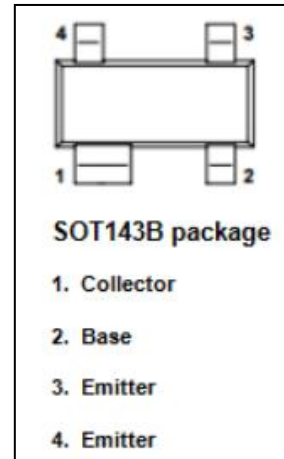


isc Silicon NPN RF Transistor
ON4832
DESCRIPTION

- Low Noise Figure
 $NF = 1.3 \text{ dB TYP. @ } V_{CE} = 8 \text{ V, } I_C = 10 \text{ mA, } f = 900 \text{ MHz}$
- High Gain
 $|S_{21}|^2 = 16 \text{ dB TYP. @ } V_{CE} = 8 \text{ V, } I_C = 40 \text{ mA, } f = 900 \text{ MHz}$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for use in low noise ,high-gain amplifiers and linear broadband amplifiers.


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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	20	V
V_{CEO}	Collector-Emitter Voltage	15	V
V_{EBO}	Emitter-Base Voltage	2.5	V
I_C	Collector Current-Continuous	120	mA
P_C	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	0.5	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-65~150	$^\circ\text{C}$

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ON4832

ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C=1\text{mA}; I_B=0$	15			V
I_{CBO}	Collector Cutoff Current	$V_{CB}=8\text{V}; I_E=0$			0.05	μA
h_{FE}	DC Current Gain	$I_C=40\text{mA}; V_{CE}=8\text{V}$	60		250	
f_T	Current-Gain—Bandwidth Product	$I_C=40\text{mA}; V_{CE}=8\text{V}; f=1\text{MHz}$		9		GHz
C_{re}	Feedback Capacitance	$I_E=0; V_{CB}=8\text{V}; f=1\text{MHz}$		0.5		pF
C_e	Emitter capacitance	$I_C=I_C=0; V_{EB}=0.5\text{V}; f=1\text{MHz}$		2.0		pF
C_c	Collector capacitance	$I_E=I_E=0; V_{CB}=8\text{V}; f=1\text{MHz}$		0.9		pF
$ S_{21} ^2$	Insertion Power Gain	$I_C=40\text{mA}; V_{CE}=8\text{V}; f=900\text{MHz}$	15	16		dB
NF	Noise Figure	$I_C=10\text{mA}; V_{CE}=8\text{V}; f=900\text{MHz}$		1.3	1.8	dB
		$I_C=40\text{mA}; V_{CE}=8\text{V}; f=900\text{MHz}$		1.9	2.4	
		$I_C=10\text{mA}; V_{CE}=8\text{V}; f=2\text{GHz}$		2.1		

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PACKAGE SIZE DRAWING

