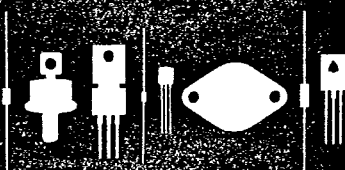


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PN4888

PN4889

PNP SILICON TRANSISTOR

JEDEC TO-92 CASE (EBC)

DESCRIPTION

The CENTRAL SEMICONDUCTOR PN4888 series types are molded epoxy silicon PNP transistors designed for high voltage amplifier applications.

MAXIMUM RATINGS ($T_A=25^\circ\text{C}$ unless otherwise noted)

	SYMBOL		UNIT
Collector - Base Voltage	V_{CB0}	150	V
Collector - Emitter Voltage	V_{CE0}	150	V
Emitter - Base Voltage	V_{EB0}	6.0	V
Collector Current	I_C	100	mA
Power Dissipation	P_D	625	mW
Power Dissipation ($T_C=25^\circ\text{C}$)	P_D	1.0	W
Operating and Storage			
Junction Temperature	T_J, T_{STG}	-65 TO +150	$^\circ\text{C}$
Thermal Resistance	θ_{JA}	200	$^\circ\text{C/W}$
Thermal Resistance	θ_{JC}	125	$^\circ\text{C/W}$

ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	PN4888		PN4889		UNIT
		MIN	MAX	MIN	MAX	
I_{CB0}	$V_{CB}=100\text{V}$		50		10	nA
I_{CB0}	$V_{CB}=100\text{V}, T_A=65^\circ\text{C}$		2.5		0.5	μA
I_{EB0}	$V_{EB}=4.0\text{V}$		50		10	nA
BV_{CB0}	$I_C=100\mu\text{A}$	150		150		V
BV_{CES}	$I_C=100\mu\text{A}$	150		150		V
BV_{CEO}	$I_C=2.0\text{mA}$	150		150		V
BV_{EBO}	$I_E=10\mu\text{A}$	6.0		6.0		V
$V_{CE}(\text{SAT})$	$I_C=10\text{mA}, I_B=1.0\text{mA}$		0.5		0.5	V
$V_{BE}(\text{SAT})$	$I_C=10\text{mA}, I_B=1.0\text{mA}$		0.9		0.9	V
$V_{BE}(\text{ON})$	$V_{CE}=10\text{V}, I_C=1.0\text{mA}$		0.8		0.7	V
h_{FE}	$V_{CE}=10\text{V}, I_C=100\mu\text{A}$	-		60		
h_{FE}	$V_{CE}=10\text{V}, I_C=1.0\text{mA}$	30		70		
h_{FE}	$V_{CE}=10\text{V}, I_C=10\text{mA}$	40	400	80	300	
h_{fe}	$V_{CE}=10\text{V}, I_C=1.0\text{mA}, f=20\text{ MHz}$	30	160	40	160	MHz
f_T	$V_{CE}=10\text{V}, I_C=1.0\text{mA}, f=1.0\text{kHz}$	30	500	65	400	kHz
h_{oe}	$V_{CE}=10\text{V}, I_C=1.0\text{mA}, f=1.0\text{kHz}$	1.4	40	3.0	25	μmhos
h_{re}	$V_{CE}=10\text{V}, I_C=1.0\text{mA}, f=1.0\text{kHz}$		-		5.0	$\times 10^{-4}$
h_{ie}	$V_{CE}=10\text{V}, I_C=1.0\text{mA}, f=1.0\text{kHz}$	0.75	20	1.7	12	k Ω
C_{ob}	$V_{CB}=20\text{V}, I_E=0, f=1.0\text{MHz}$		4.0		4.0	pF
C_{ib}	$V_{EB}=0.5\text{V}, I_C=0, f=1.0\text{MHz}$		30		25	pF
NF	$V_{CE}=5.0\text{V}, I_C=250\mu\text{A}, R_s=1.0\text{k}\Omega,$ $BW=15.7\text{kHz}, f=10\text{Hz to } 10\text{kHz}$	-			4.0	dB
NF	$V_{CE}=5.0\text{V}, I_C=30\mu\text{A}, R_s=10\text{k}\Omega,$ $BW=150\text{Hz}, f=1.0\text{kHz}$	-			3.0	dB
NF	$V_{CE}=5.0\text{V}, I_C=250\mu\text{A}, R_s=1.0\text{k}\Omega,$ $BW=1.5\text{kHz}, f=10\text{kHz}$	-			3.0	dB
NF	$V_{CE}=5.0\text{V}, I_C=250\mu\text{A}, R_s=1.0\text{k}\Omega,$ $BW=15\text{Hz}, f=100\text{Hz}$	-			10	dB
NF	$V_{CE}=10\text{V}, I_C=1.0\text{mA}, R_s=1.0\text{k}\Omega,$ $BW=2.0\text{Hz}, f=1.0\text{MHz}$	-			4.0	dB