

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

2N5086
2N5087

PNP SILICON TRANSISTORS

JEDEC TO-92 CASE (EBC)

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N5086, 2N5087 series are molded epoxy silicon PNP signal transistors designed for low level, low noise amplifier applications.

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

	SYMBOL		UNIT
Collector-Base Voltage	V_{CB0}	50	V
Collector-Emitter Voltage	V_{CE0}	50	V
Emitter-Base Voltage	V_{EB0}	3.0	V
Collector Current	I_C	50	mA
Power Dissipation	P_D	625	mW
Power Dissipation	P_D	1.5	W
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 TO +150	$^{\circ}\text{C}$
Thermal Resistance	θ_{JA}	0.2	$^{\circ}\text{C}/\text{mW}$
Thermal Resistance	θ_{JC}	83.3	$^{\circ}\text{C}/\text{W}$

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

SYMBOL	TEST CONDITIONS	2N5086		2N5087		UNIT
		MIN	MAX	MIN	MAX	
I_{CB0}	$V_{CB}=10\text{V}$		10		10	nA
I_{CB0}	$V_{CB}=35\text{V}$		50		50	nA
I_{EB0}	$V_{EB}=3.0\text{V}$		50		50	nA
BV_{CB0}	$I_C=100\mu\text{A}$	50		50		V
BV_{CE0}	$I_C=1.0\text{mA}$	50		50		V
$V_{CE}(\text{SAT})$	$I_C=10\text{mA}, I_B=1.0\text{mA}$		0.3		0.3	V
$V_{BE}(\text{ON})$	$V_{CE}=5.0\text{V}, I_C=1.0\text{mA}$		0.85		0.85	V
h_{FE}	$V_{CE}=5.0\text{V}, I_C=100\mu\text{A}$	150	500	250	800	
h_{FE}	$V_{CE}=5.0\text{V}, I_C=1.0\text{mA}$	150		250		
h_{FE}	$V_{CE}=5.0\text{V}, I_C=10\text{mA}$	150		250		
h_{fe}	$V_{CE}=5.0\text{V}, I_C=1.0\text{mA}, f=1.0\text{kHz}$	150	600	250	900	
f_T	$V_{CE}=5.0\text{V}, I_C=500\mu\text{A}, f=20\text{MHz}$	40		40		MHz
C_{ob}	$V_{CB}=5.0\text{V}, I_E=0, f=100\text{kHz}$		4.0		4.0	pF
NF	$V_{CE}=5.0\text{V}, I_C=20\mu\text{A}, R_S=10\text{k}\Omega, f=10\text{Hz TO } 15.7\text{kHz}$		3.0		2.0	dB
NF	$V_{CE}=5.0\text{V}, I_C=100\mu\text{A}, R_S=3.0\text{k}\Omega, f=1.0\text{kHz}$		3.0		2.0	dB

OUTSTANDING SUPPORT AND SUPERIOR SERVICES



PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2nd day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix "TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix "PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

CONTACT US

Corporate Headquarters & Customer Support Team

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