

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°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 | °C |
| Thermal Resistance | θ _{JA} | 0.2 | °C/mW |
| Thermal Resistance | θ _{JC} | 83.3 | °C/W |

ELECTRICAL CHARACTERISTICS (T_A=25°C)

| SYMBOL | TEST CONDITIONS | 2N5086 | | 2N5087 | | UNIT |
|----------------------|---|--------|------|--------|------|------|
| | | MIN | MAX | MIN | MAX | |
| I _{CBO} | V _{CB} =10V | | 10 | | 10 | nA |
| I _{CBO} | V _{CB} =35V | | 50 | | 50 | nA |
| I _{EB0} | V _{EB} =3.0V | | 50 | | 50 | nA |
| BV _{CB0} | I _C =100μA | 50 | | 50 | | V |
| BV _{CE0} | I _C =1.0mA | 50 | | 50 | | V |
| V _{CE(SAT)} | I _C =10mA, I _B =1.0mA | | 0.3 | | 0.3 | V |
| V _{BE(ON)} | V _{CE} =5.0V, I _C =1.0mA | | 0.85 | | 0.85 | V |
| h _{FE} | V _{CE} =5.0V, I _C =100μA | 150 | 500 | 250 | 800 | |
| h _{FE} | V _{CE} =5.0V, I _C =1.0mA | 150 | | 250 | | |
| h _{FE} | V _{CE} =5.0V, I _C =10mA | 150 | | 250 | | |
| h _{fe} | V _{CE} =5.0V, I _C =1.0mA, f=1.0kHz | 150 | 600 | 250 | 900 | |
| f _T | V _{CE} =5.0V, I _C =500μA, f=20MHz | 40 | | 40 | | MHz |
| C _{ob} | V _{CB} =5.0V, I _E =0, f=100kHz | | 4.0 | | 4.0 | pF |
| NF | V _{CE} =5.0V, I _C =20μA, R _S =10kΩ, f=10Hz TO 15.7kHz | | 3.0 | | 2.0 | dB |
| NF | V _{CE} =5.0V, I _C =100μA, R _S =3.0kΩ, f=1.0kHz | | 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

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