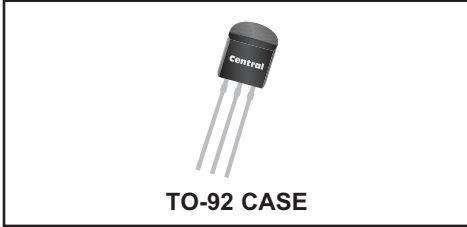


**MPSA26
MPSA27**

**SILICON
NPN DARLINGTON TRANSISTORS**



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR MPSA26 and MPSA27 are silicon NPN Darlington transistors manufactured by the epitaxial planar process and designed for applications requiring extremely high gain.

MARKING: FULL PART NUMBER

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

| |
|--|
| Collector-Base Voltage |
| Collector-Emitter Voltage |
| Emitter-Base Voltage |
| Continuous Collector Current |
| Power Dissipation |
| Operating and Storage Junction Temperature |
| Thermal Resistance |

| SYMBOL | MPSA26 | MPSA27 | UNITS |
|----------------|-------------|--------|--------------------|
| V_{CBO} | 50 | 60 | V |
| V_{CES} | 50 | 60 | V |
| V_{EBO} | 10 | | V |
| I_C | 500 | | mA |
| P_D | 625 | | mW |
| T_J, T_{stg} | -65 to +150 | | $^\circ\text{C}$ |
| θ_{JA} | 200 | | $^\circ\text{C/W}$ |

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

| SYMBOL | TEST CONDITIONS | MPSA26 | | MPSA27 | | UNITS |
|---------------|--|--------|-----|--------|-----|-------|
| | | MIN | MAX | MIN | MAX | |
| I_{CBO} | $V_{CB}=40\text{V}$ | - | 100 | - | - | nA |
| I_{CBO} | $V_{CB}=50\text{V}$ | - | - | - | 100 | nA |
| I_{CES} | $V_{CE}=40\text{V}$ | - | 500 | - | - | nA |
| I_{CES} | $V_{CE}=50\text{V}$ | - | - | - | 500 | nA |
| I_{EBO} | $V_{EB}=10\text{V}$ | - | 100 | - | 100 | nA |
| BV_{CBO} | $I_C=100\mu\text{A}$ | 50 | - | 60 | - | V |
| BV_{CES} | $I_C=100\mu\text{A}$ | 50 | - | 60 | - | V |
| $V_{CE(SAT)}$ | $I_C=100\text{mA}, I_B=100\mu\text{A}$ | - | 1.5 | - | 1.5 | V |
| $V_{BE(ON)}$ | $V_{CE}=5.0\text{V}, I_C=100\text{mA}$ | - | 2.0 | - | 2.0 | V |
| h_{FE} | $V_{CE}=5.0\text{V}, I_C=10\text{mA}$ | 10,000 | - | 10,000 | - | |
| h_{FE} | $V_{CE}=5.0\text{V}, I_C=100\text{mA}$ | 10,000 | - | 10,000 | - | |
| f_T | $V_{CE}=5.0\text{V}, I_C=10\text{mA}, f=100\text{MHz}$ | 125 | - | 125 | - | MHz |

MPSA26
MPSA27

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TO-92 CASE - MECHANICAL OUTLINE



R1

| SYMBOL | INCHES | | MILLIMETERS | |
|---------|--------|-------|-------------|------|
| | MIN | MAX | MIN | MAX |
| A (DIA) | 0.175 | 0.205 | 4.45 | 5.21 |
| B | 0.170 | 0.210 | 4.32 | 5.33 |
| C | 0.500 | - | 12.70 | - |
| D | 0.016 | 0.022 | 0.41 | 0.56 |
| E | 0.100 | | 2.54 | |
| F | 0.050 | | 1.27 | |
| G | 0.125 | 0.165 | 3.18 | 4.19 |
| H | 0.080 | 0.105 | 2.03 | 2.67 |
| I | 0.015 | | 0.38 | |

TO-92 (REV: R1)

LEAD CODE:

- 1) Emitter
- 2) Base
- 3) Collector

MARKING:

FULL PART NUMBER

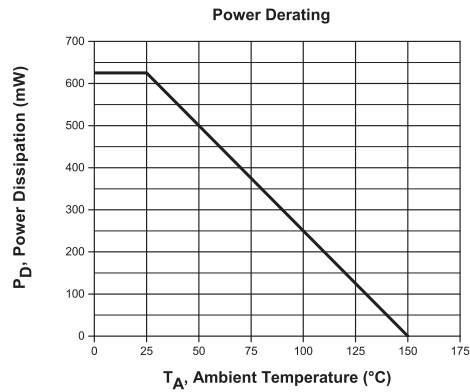
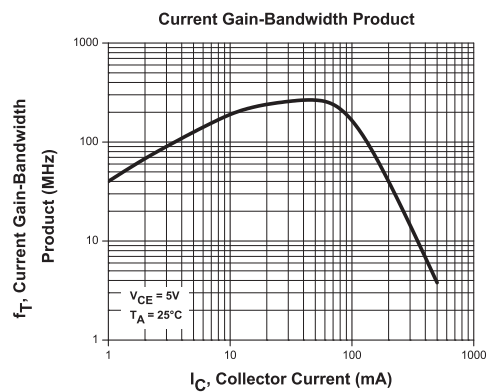
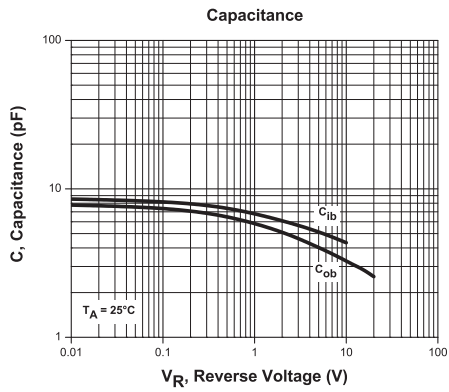
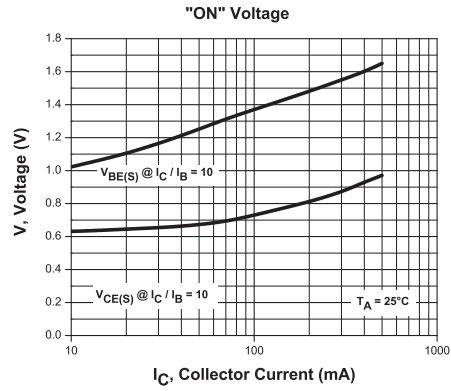
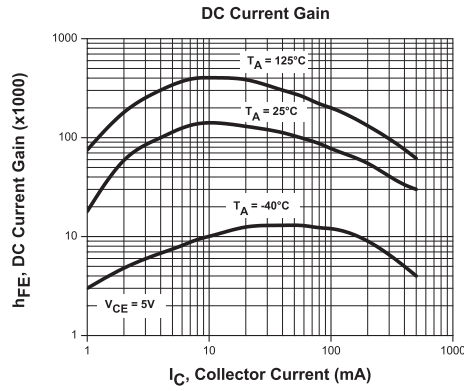
R0 (18-March 2014)

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TYPICAL ELECTRICAL CHARACTERISTICS



R0 (18-March 2014)