BC327/328

Switching and Amplifier Applications
- Suitable for AF-Driver stages and low power output stages
- Complement to BC337/BC338

PNP Epitaxial Silicon Transistor

Absolute Maximum Ratings \( T_a=25^\circ C \) unless otherwise noted

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Parameter</th>
<th>Value</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>( V_{CES} )</td>
<td>Collector-Emitter Voltage</td>
<td>-50</td>
<td>V</td>
</tr>
<tr>
<td>( V_{CEO} )</td>
<td>Collector-Emitter Voltage</td>
<td>-45</td>
<td>V</td>
</tr>
<tr>
<td>( V_{EBO} )</td>
<td>Emitter-Base Voltage</td>
<td>-5</td>
<td>V</td>
</tr>
<tr>
<td>( I_C )</td>
<td>Collector Current (DC)</td>
<td>-800</td>
<td>mA</td>
</tr>
<tr>
<td>( P_C )</td>
<td>Collector Power Dissipation</td>
<td>625</td>
<td>mW</td>
</tr>
<tr>
<td>( T_J )</td>
<td>Junction Temperature</td>
<td>150</td>
<td>°C</td>
</tr>
<tr>
<td>( T_{STG} )</td>
<td>Storage Temperature</td>
<td>-55 ~ 150</td>
<td>°C</td>
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Electrical Characteristics \( T_a=25^\circ C \) unless otherwise noted

<table>
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<tr>
<th>Symbol</th>
<th>Parameter</th>
<th>Test Condition</th>
<th>Min.</th>
<th>Typ.</th>
<th>Max.</th>
<th>Units</th>
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<tr>
<td>( BV_{CEO} )</td>
<td>Collector-Emitter Breakdown Voltage</td>
<td>( I_C= -10mA, I_B=0 )</td>
<td>-45</td>
<td>-25</td>
<td></td>
<td>V</td>
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<tr>
<td>( BV_{CES} )</td>
<td>Collector-Emitter Breakdown Voltage</td>
<td>( I_C= -0.1mA, V_{BE}=0 )</td>
<td>-50</td>
<td>-30</td>
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<td>V</td>
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<tr>
<td>( BV_{EBO} )</td>
<td>Emitter-Base Breakdown Voltage</td>
<td>( I_C= -10\mu A, I_C=0 )</td>
<td>-5</td>
<td></td>
<td></td>
<td>V</td>
</tr>
<tr>
<td>( I_{CES} )</td>
<td>Collector Cut-off Current</td>
<td>( V_{CE}= -45V, V_{BE}=0 )</td>
<td>-2</td>
<td>-100</td>
<td>nA</td>
<td></td>
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<tr>
<td>( h_{FE1} )</td>
<td>DC Current Gain ( V_{CE}= -1V, I_C=-100mA )</td>
<td>100</td>
<td>630</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>( h_{FE2} )</td>
<td>DC Current Gain ( V_{CE}= -1V, I_C=-300mA )</td>
<td>40</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>( V_{CE\text{ (sat)} } )</td>
<td>Collector-Emitter Saturation Voltage</td>
<td>( I_C= -500mA, I_B=-50mA )</td>
<td>-0.7</td>
<td></td>
<td>V</td>
<td></td>
</tr>
<tr>
<td>( V_{BE\text{ (on)} } )</td>
<td>Base-Emitter On Voltage</td>
<td>( V_{CE}= -5V, I_C=-10mA, f=20MHz )</td>
<td>100</td>
<td></td>
<td>MHz</td>
<td></td>
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<tr>
<td>( f_T )</td>
<td>Current Gain Bandwidth Product</td>
<td>( V_{CE}= -10V, I_E=0, f=1MHz )</td>
<td>12</td>
<td></td>
<td>pF</td>
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\( h_{FE} \) Classification

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<th>16</th>
<th>25</th>
<th>40</th>
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<tbody>
<tr>
<td>( h_{FE1} )</td>
<td>100 ~ 250</td>
<td>160 ~ 400</td>
<td>250 ~ 630</td>
</tr>
<tr>
<td>( h_{FE2} )</td>
<td>60-</td>
<td>100-</td>
<td>170-</td>
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Typical Characteristics

Figure 1. Static Characteristic

Figure 2. Static Characteristic

Figure 3. DC current Gain

Figure 4. Base-Emitter Saturation Voltage

Collector-Emitter Saturation Voltage

Figure 5. Base-Emitter On Voltage

Figure 6. Gain Bandwidth Product
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- FASTr™
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- GTO™
- HiSeC™
- I2CTM
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- PACMAN™
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- Power247™
- PowerTrench®
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- QS™
- QT Optoelectronics™
- Quiet Series™
- RapidConfigure™
- RapidConnect™
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Definition of Terms

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<th>Definition</th>
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