Silicon NPN Epitaxial Planar Transistor

Application: Audio and General Purpose

### Absolute maximum ratings (Ta=25°C)

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Ratings</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCBO</td>
<td>230</td>
<td>V</td>
</tr>
<tr>
<td>VCCEO</td>
<td>230</td>
<td>V</td>
</tr>
<tr>
<td>VCEO</td>
<td>5</td>
<td>V</td>
</tr>
<tr>
<td>IC</td>
<td>17</td>
<td>A</td>
</tr>
<tr>
<td>IB</td>
<td>5</td>
<td>A</td>
</tr>
<tr>
<td>PC</td>
<td>200(Ta=25°C)</td>
<td>W</td>
</tr>
<tr>
<td>Tj</td>
<td>150</td>
<td>°C</td>
</tr>
<tr>
<td>Tstg</td>
<td>–55 to +150</td>
<td>°C</td>
</tr>
</tbody>
</table>

### Electrical Characteristics (Ta=25°C)

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Conditions</th>
<th>Ratings</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICBO</td>
<td>VCBO~230V</td>
<td>100max</td>
<td>µA</td>
</tr>
<tr>
<td>IBBO</td>
<td>VEE~5V</td>
<td>100max</td>
<td>µA</td>
</tr>
<tr>
<td>VBRCEO</td>
<td>IC~25mA</td>
<td>230min</td>
<td>V</td>
</tr>
<tr>
<td>hFE</td>
<td>VCEO=4V, IC=5A</td>
<td>50min*</td>
<td></td>
</tr>
<tr>
<td>VCE(sat)</td>
<td>IC=5A, IB=0.5A</td>
<td>2.0max</td>
<td>V</td>
</tr>
<tr>
<td>fT</td>
<td>VCE=12V, IC=–2A</td>
<td>60typ</td>
<td>MHz</td>
</tr>
<tr>
<td>GB</td>
<td>VCE=10V, f=1MHz</td>
<td>250typ</td>
<td>pF</td>
</tr>
</tbody>
</table>

### Typical Switching Characteristics (Common Emitter)

<table>
<thead>
<tr>
<th>Vcc (V)</th>
<th>RL (Ω)</th>
<th>IC (A)</th>
<th>VBE (V)</th>
<th>ICBO (mA)</th>
<th>IBBO (mA)</th>
<th>ton (µs)</th>
<th>tf (µs)</th>
<th>t(H) (µs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>60</td>
<td>12</td>
<td>5</td>
<td>10</td>
<td>–5</td>
<td>0.5</td>
<td>0.30typ</td>
<td>2.40typ</td>
<td>0.50typ</td>
</tr>
</tbody>
</table>

### IC–Vce Characteristics (Typical)

- Collector Current (IC)
- Collector-Emitter Voltage (Vce)

### Vce(sat)–IC Characteristics (Typical)

- Collector-Emitter Saturation Voltage (Vce(sat))
- Base Current (IB)

### Ic–Vce Temperature Characteristics (Typical)

- Collector Current (IC)
- Collector-Emitter Voltage (Vce)

### hFE–IC Characteristics (Typical)

- DC Current Gain (hFE)

### hFE–Temperature Characteristics (Typical)

- DC Current Gain (hFE)
- Collector Current (IC)

### f1–IB Characteristics (Typical)

- Cut-off Frequency (f1)
- Emitter Current (IE)

### Safe Operating Area (Single Pulse)

- Collector-Emitter Voltage (Vce)
- Collector Current (IC)

### Pc–Ta Derating

- Maximum Power Dissipation (Pc)
- Ambient Temperature (Ta)

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**External Dimensions MT-200**

- Weight: Approx 18.4g
- a. Part No.
- b. Lot No.

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**LAPT 2SC3264**

- Application: Audio and General Purpose

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**Vcc** (V)

- 60

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**RL** (Ω)

- 12

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**IC** (A)

- 5

---

**VBE** (V)

- 10

---

**ICBO** (mA)

- –5

---

**IBBO** (mA)

- 0.5

---

**ton** (µs)

- 0.30typ

---

**tf** (µs)

- 2.40typ

---

**t(H)** (µs)

- 0.50typ

---

**Weight**

- 18.4g

---

**Part No.**

- a.

---

**Lot No.**

- b.