
2SC2620

Silicon NPN Epitaxial Planar

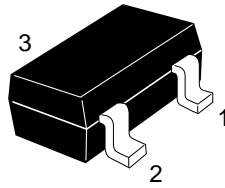
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Application

VHF amplifier, Local oscillator

Outline

MPAK



- 1. Emitter
- 2. Base
- 3. Collector

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

| Item | Symbol | Ratings | Unit |
|------------------------------|------------------|-------------|------------------|
| Collector to base voltage | V_{CBO} | 30 | V |
| Collector to emitter voltage | V_{CEO} | 20 | V |
| Emitter to base voltage | V_{EBO} | 4 | V |
| Collector current | I_{C} | 20 | mA |
| Collector power dissipation | P_{C} | 100 | mW |
| Junction temperature | T_{j} | 150 | $^\circ\text{C}$ |
| Storage temperature | T_{stg} | -55 to +150 | $^\circ\text{C}$ |

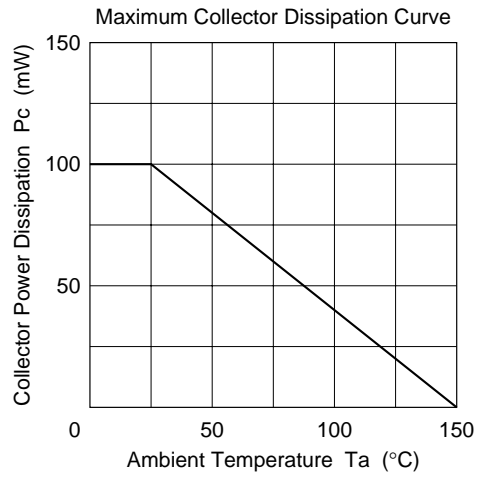
Electrical Characteristics ($T_a = 25^\circ\text{C}$)

| Item | Symbol | Min | Typ | Max | Unit | Test conditions |
|---|-----------------------------|-----|------|-----|---------------|---|
| Collector to base breakdown voltage | $V_{(\text{BR})\text{CBO}}$ | 30 | — | — | V | $I_{\text{C}} = 10 \mu\text{A}$, $I_{\text{E}} = 0$ |
| Collector to emitter breakdown voltage | $V_{(\text{BR})\text{CEO}}$ | 20 | — | — | V | $I_{\text{C}} = 1 \text{ mA}$, $R_{\text{BE}} = \infty$ |
| Emitter to base breakdown voltage | $V_{(\text{BR})\text{EBO}}$ | 4 | — | — | V | $I_{\text{E}} = 10 \mu\text{A}$, $I_{\text{C}} = 0$ |
| Collector cutoff current | I_{CBO} | — | — | 0.5 | μA | $V_{\text{CB}} = 10 \text{ V}$, $I_{\text{C}} = 0$ |
| Emitter cutoff current | I_{EBO} | — | — | 0.5 | μA | $V_{\text{EB}} = 2 \text{ V}$, $I_{\text{C}} = 0$ |
| DC current transfer ratio | h_{FE}^{*1} | 60 | — | 200 | | $V_{\text{CE}} = 6 \text{ V}$, $I_{\text{C}} = 1 \text{ mA}$ |
| Collector to emitter saturation voltage | $V_{\text{CE}(\text{sat})}$ | — | 0.17 | — | V | $I_{\text{C}} = 20 \text{ mA}$, $I_{\text{B}} = 4 \text{ mA}$ |
| Base to emitter voltage | V_{BE} | — | 0.72 | — | V | $V_{\text{CE}} = 6 \text{ mA}$, $I_{\text{C}} = 1 \text{ mA}$ |
| Gain bandwidth product | f_{T} | — | 940 | — | MHz | $V_{\text{CE}} = 6 \text{ V}$, $I_{\text{C}} = 5 \text{ mA}$ |
| Collector output capacitance | C_{ob} | — | 0.9 | — | pF | $V_{\text{CB}} = 10 \text{ V}$, $I_{\text{E}} = 0$, $f = 1 \text{ MHz}$ |

Note: 1. The 2SC2620 is grouped by h_{FE} as follows.

| Grade | B | C |
|-----------------|-----------|------------|
| Mark | QB | QC |
| h_{FE} | 60 to 120 | 100 to 200 |

See characteristic curves of 2SC535.





| | |
|--------------------------|----------|
| Hitachi Code | MPAK |
| JEDEC | — |
| EIAJ | Conforms |
| Weight (reference value) | 0.011 g |

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