



DESCRIPTION

The 2SC1623P~2SC1623S are available in SOT-23 Package

FEATURES

- High DC current gain: $h_{FE}=200$ TYP ($V_{CE0}=50V$, $I_C=100mA$)
- High Voltage: $V_{CE0}=50V$
- Available in SOT-23 Package

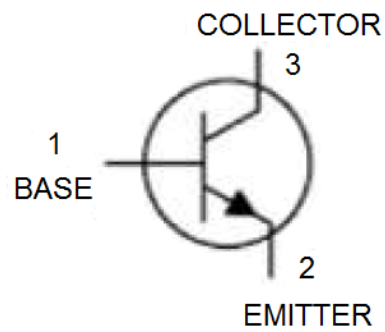
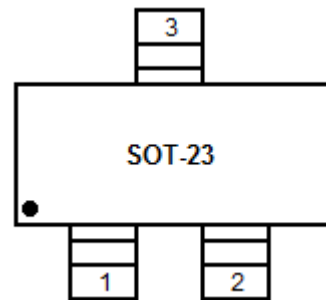
ORDERING INFORMATION

| Package Type | Part Number |
|--|---------------------|
| SOT-23 | 2SC1623P |
| | 2SC1623Q |
| | 2SC1623R |
| | 2SC1623S |
| Note | SPQ: 3,000pcs/ Reel |
| AiT provides all RoHS Compliant Products | |

APPLICATIONS

- NPN Silicon Epitaxial Planar Transistor
- Audio frequency general purpose amplifier

PIN DESCRIPTION





ABSOLUTE MAXIMUM RATINGS

T_A = 25°C, unless otherwise specified

| | |
|--|----------------|
| V _{CB0} , Collector-Base Voltage | 60V |
| V _{CEO} , Collector-Emitter Voltage | 50V |
| V _{EBO} , Emitter-Base Voltage | 5V |
| I _C , Collector Current-Continuous | 100mA |
| P _C , Collector Dissipation | 200mW |
| T _J , T _{STG} , Junction and Storage Temperature | -55°C ~ +150°C |

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.



ELECTRICAL CHARACTERISTICS

T_A = 25°C, unless otherwise specified

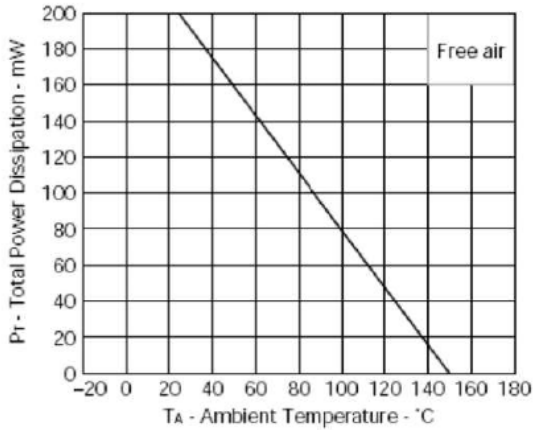
| Parameter | Symbol | Characteristic | Min. | Typ. | Max. | Unit | |
|--------------------------------------|----------------------|---|------|------|------|------|--|
| Collector-Base Breakdown Voltage | V _{(BR)CBO} | I _C =100μA, I _E =0 | 60 | - | - | V | |
| Collector-Emitter Breakdown Voltage | V _{(BR)CEO} | I _C =1mA, I _B =0 | 50 | - | - | V | |
| Emitter-Base Breakdown Voltage | V _{(BR)EBO} | I _E =100μA, I _C =0 | 5 | - | - | V | |
| Collector Cut-off Current | I _{CBO} | V _{CB} =60V, I _E =0 | - | - | 0.1 | μA | |
| Emitter Cut-off Current | I _{EBO} | V _{EB} =5V, I _C =0 | - | - | 0.1 | μA | |
| DC Current Gain | h _{FE} | V _{CE} =6V, I _C =1mA | P | 90 | - | 180 | |
| | | | Q | 135 | - | 270 | |
| | | | R | 200 | - | 400 | |
| | | | S | 300 | - | 600 | |
| Collector-Emitter Saturation Voltage | V _{CE(sat)} | I _C =100mA, I _B =10mA | - | - | 0.3 | V | |
| Transition Frequency | f _T | V _{CE} =6V, I _C =10mA | - | 250 | - | MHz | |



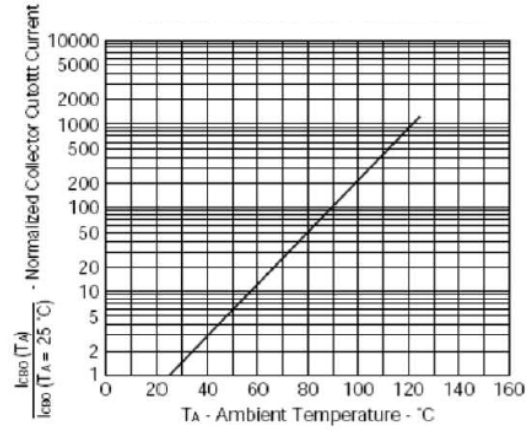
TYPICAL CHARACTERISTICS

T_A = 25°C, unless otherwise specified

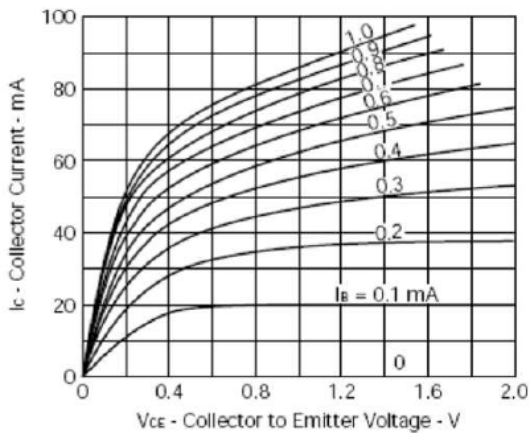
1. Total Power Dissipation vs. Ambient Temperature



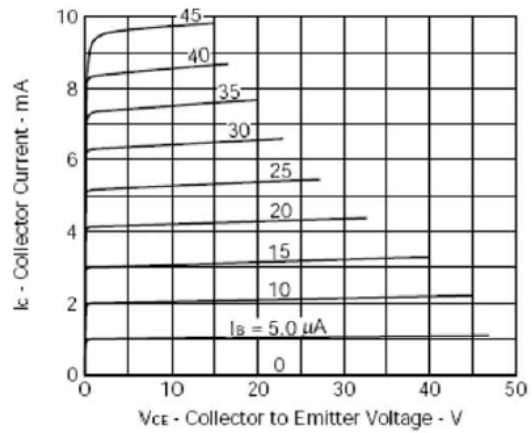
2. Normalized Collector Cutoff Current vs. Ambient Temperature



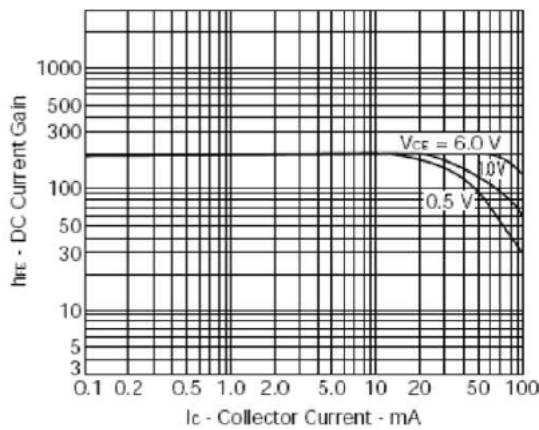
3. Collector Current vs. Collector to Emitter Voltage



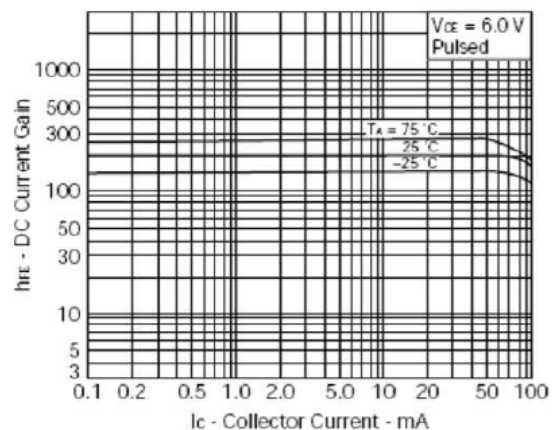
4. Collector Current vs. Collector to Emitter Voltage



5. DC Current Gain vs. Collector Current



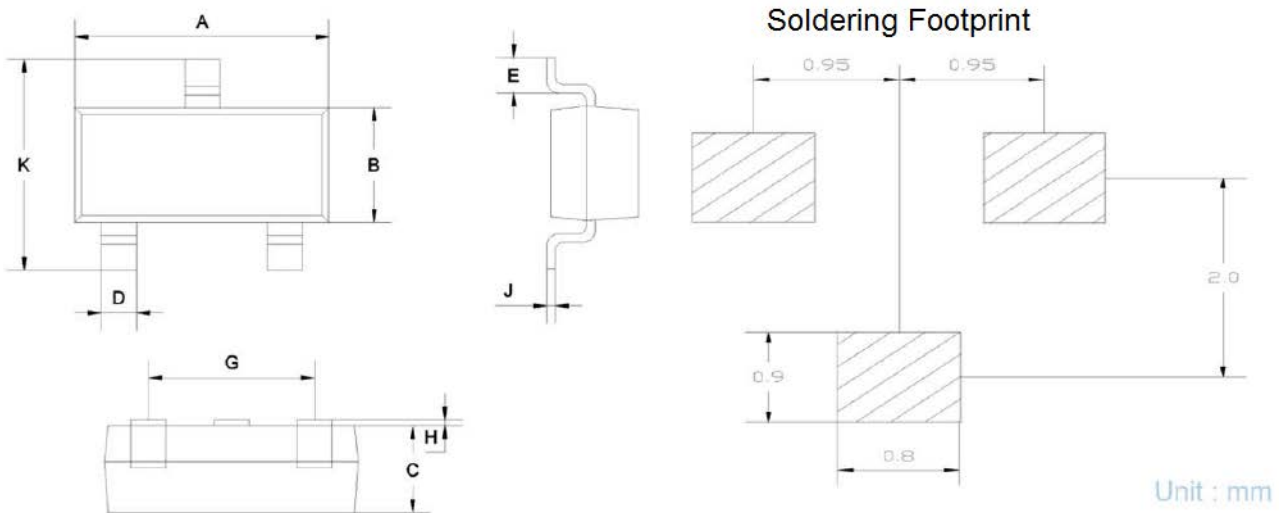
6. DC Current Gain vs. Collector Current





PACKAGE INFORMATION

Dimension in SOT-23 Package (Unit: mm)



| DIM | MIN | MAX |
|-----|---------|------|
| A | 2.85 | 2.95 |
| B | 1.25 | 1.35 |
| C | 1.0 TYP | |
| D | 0.37 | 0.43 |
| E | 0.35 | 0.48 |
| G | 1.85 | 1.95 |
| H | 0.02 | 0.1 |
| J | 0.1 TYP | |
| K | 2.35 | 2.45 |



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