

Inchange Semiconductor

Product Specification

Silicon NPN Power Transistors

2SC1226 2SC1226A

DESCRIPTION

- With TO-202 package
- Complement to type 2SA699/699A

APPLICATIONS

- For medium power amplifier applications

PINNING(see Fig.2)

| PIN | DESCRIPTION |
|-----|-------------|
| 1 | Base |
| 2 | Collector |
| 3 | Emitter |

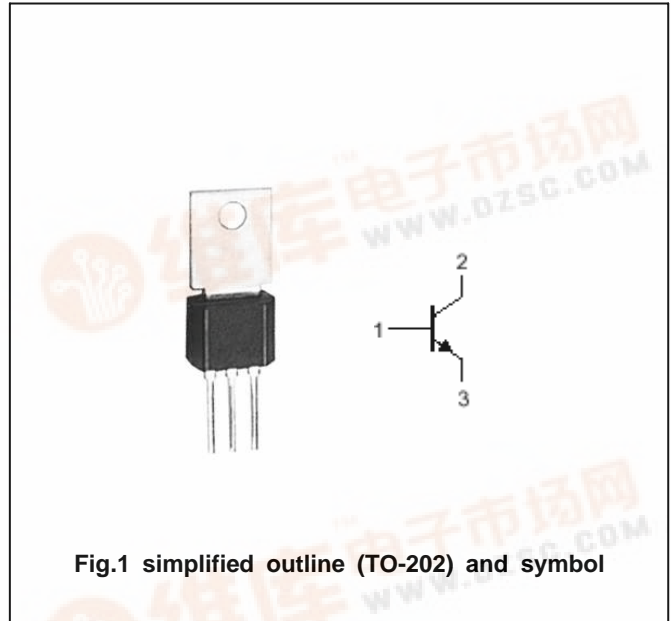


Fig.1 simplified outline (TO-202) and symbol

Absolute maximum ratings (Ta=25°C)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|------------------|-----------------------------|----------------------|---------|------|
| V _{CBO} | Collector-base voltage | 2SC1226 | 40 | V |
| | | 2SC1226A | 50 | |
| V _{CEO} | Collector-emitter voltage | 2SC1226 | 32 | V |
| | | 2SC1226A | 40 | |
| V _{EBO} | Emitter-base voltage | Open collector | 5 | V |
| I _C | Collector current | | 2 | A |
| I _{CM} | Collector current-peak | | 3 | A |
| I _B | Base current | | 0.6 | A |
| P _C | Collector power dissipation | T _C =25°C | 10 | W |
| T _j | Junction temperature | | 150 | °C |
| T _{stg} | Storage temperature | | -55~150 | °C |

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CHARACTERISTICS

T_j=25°C unless otherwise specified

| SYMBOL | PARAMETER | | CONDITIONS | MIN | TYP. | MAX | UNIT |
|----------------------|--------------------------------------|----------|--|-----|------|-----|------|
| V _{CEsat} | Collector-emitter saturation voltage | | I _C =2A ; I _B =0.2 A | | 0.4 | 1.0 | V |
| V _{BEsat} | Base-emitter saturation voltage | | I _C =2A ; I _B =0.2 A | | | 1.5 | V |
| V _{(BR)CBO} | Collector-base breakdown voltage | 2SC1226 | I _C =1mA; I _E =0 | 40 | | | V |
| | | 2SC1226A | | 50 | | | |
| V _{(BR)CEO} | Collector-emitter breakdown voltage | 2SC1226 | I _C =10mA; I _B =0 | 32 | | | V |
| | | 2SC1226A | | 40 | | | |
| I _{CBO} | Collector cut-off current | | V _{CB} =20V; I _E =0 | | | 1 | μ A |
| I _{CEO} | Collector cut-off current | | V _{CE} =12V; I _B =0 | | | 100 | μ A |
| I _{EBO} | Emitter cut-off current | | V _{EB} =5V; I _C =0 | | | 100 | μ A |
| h _{FE} | DC current gain | | I _C =1A ; V _{CE} =5V | 50 | | 220 | |
| C _{OB} | Output capacitance | | I _E =0; V _{CB} =5V; f=1MHz | | 50 | | pF |
| f _T | Transition frequency | | I _E =0.5A ; V _{CB} =5V | | 150 | | MHz |

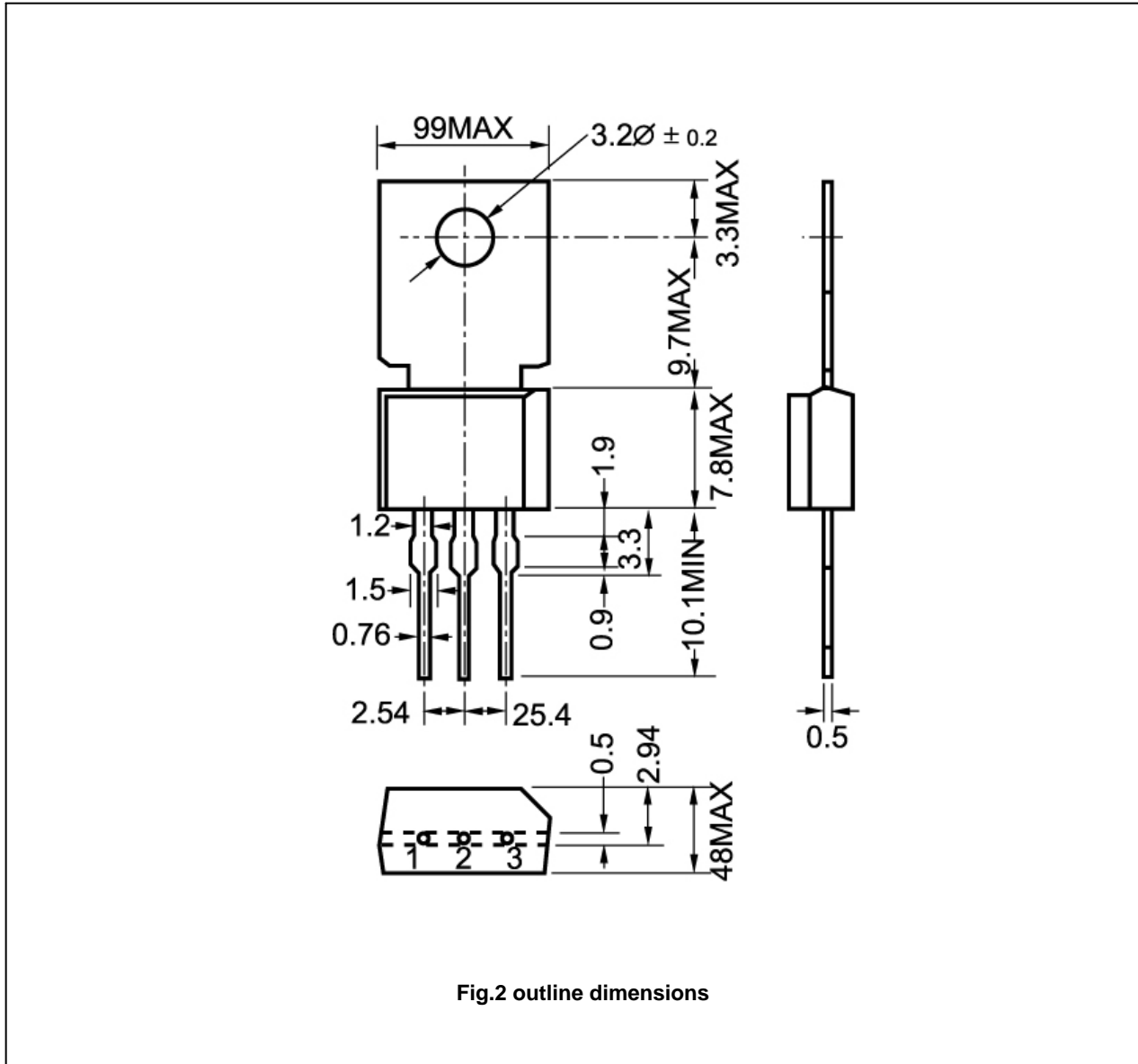
◆ h_{FE} classifications

| P | Q | R |
|--------|--------|---------|
| 50-100 | 80-160 | 100-220 |

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PACKAGE OUTLINE



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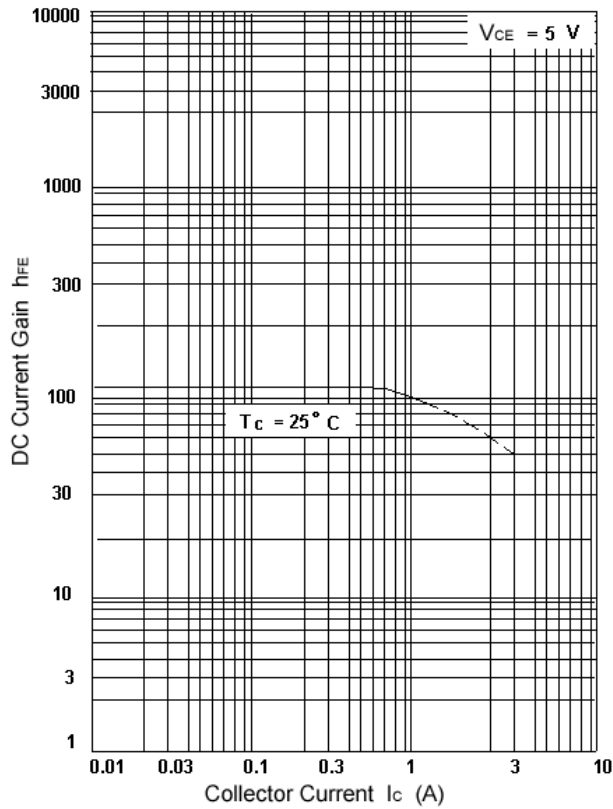


Fig.3 DC current Gain

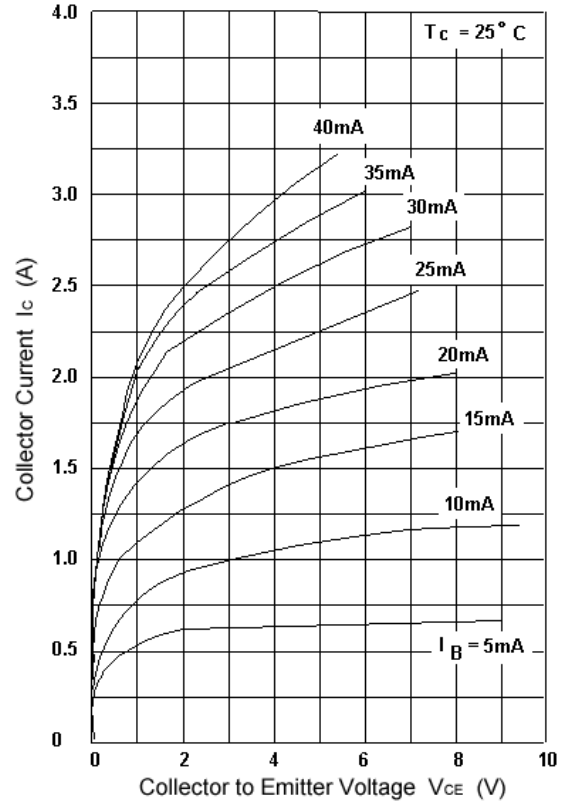


Fig.4 Static Characteristic

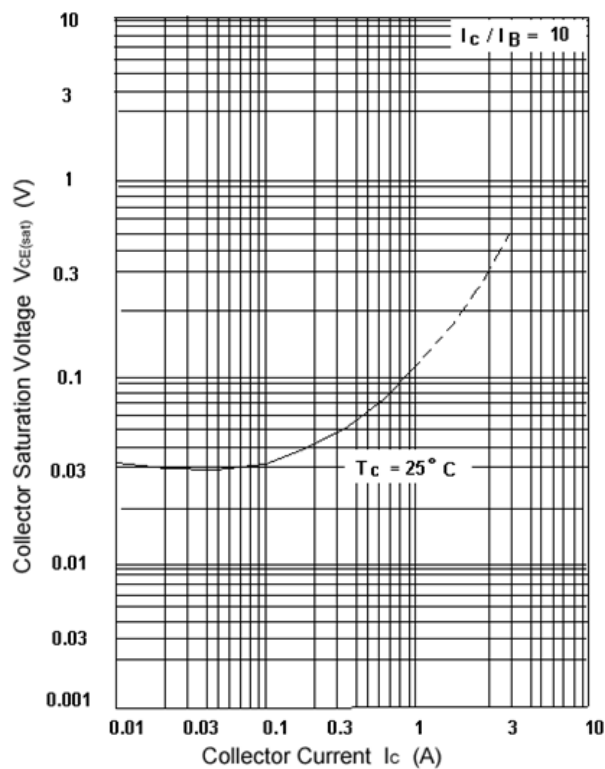


Fig.5 Collector-Emmitter Saturation Voltage

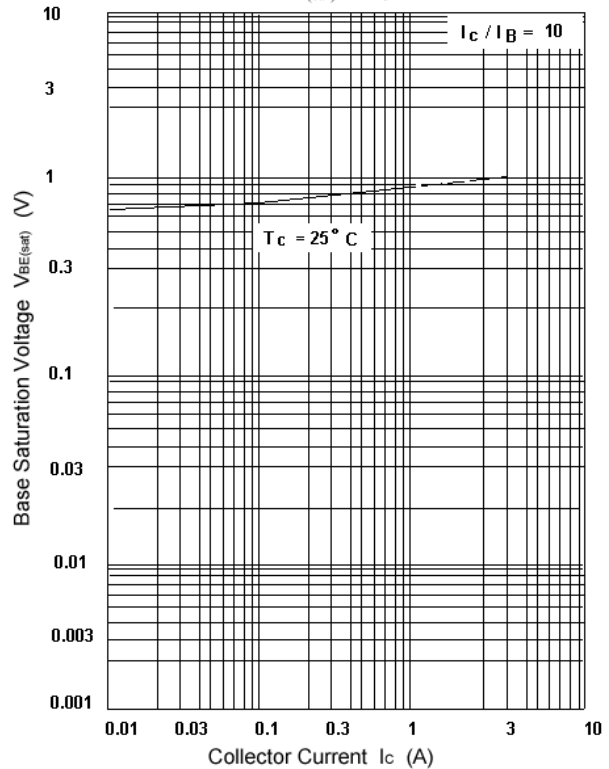


Fig.6 Base-Emmitter Saturation Voltage

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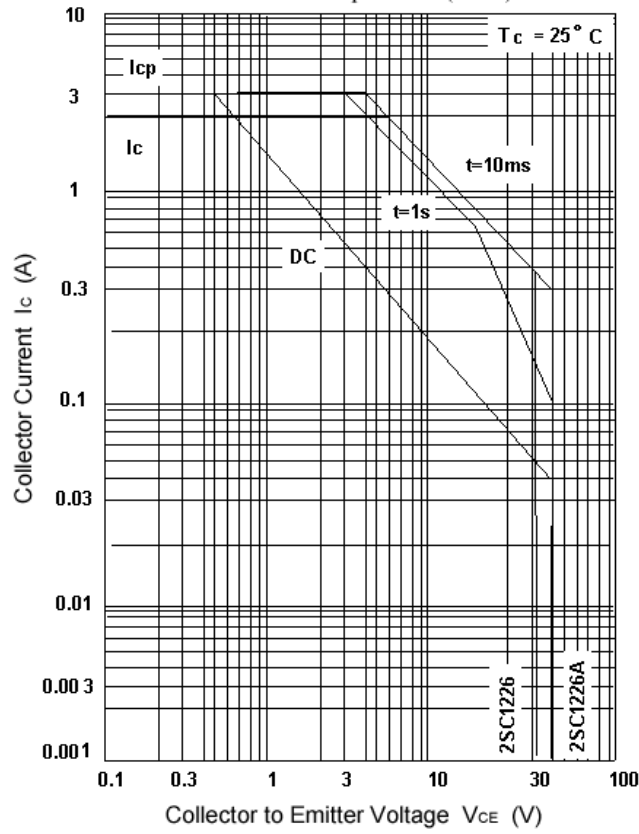


Fig.7 Safe Operating Area