



NPN Silicon Epitaxial Planar Transistor

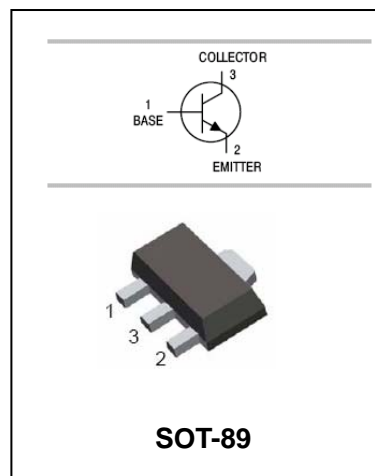
2SC2655

FEATURES

- Low saturation voltage:
VCE (sat) = 0.5 V (max) (IC = 1 A)
- High-speed switching: tstg = 1.0 μs (typ.)



Lead-free



APPLICATIONS

- Power and voltage amplifier application.

ORDERING INFORMATION

| Type No. | Marking | Package Code |
|----------|---------|--------------|
| 2SC2655 | C2655 | SOT-89 |

MAXIMUM RATING @ Ta=25°C unless otherwise specified

| Symbol | Parameter | Value | Units |
|-----------------------------------|----------------------------------|-------------|-------|
| V _{CBO} | Collector-Base Voltage | 50 | V |
| V _{CEO} | Collector-Emitter Voltage | 50 | V |
| V _{EBO} | Emitter-Base Voltage | 5 | V |
| I _C | Collector Current -Continuous | 2 | A |
| I _B | Base current | 0.5 | A |
| P _C | Collector Dissipation | 500 | mW |
| T _j , T _{stg} | Junction and Storage Temperature | -55 to +150 | °C |



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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

| Parameter | Symbol | Test conditions | MIN | TYP | MAX | UNIT |
|--------------------------------------|---------------|-----------------------------|-----|-----|-----|---------|
| Collector-base breakdown voltage | $V_{(BR)CBO}$ | $I_C=1mA, I_E=0$ | 50 | | | V |
| Collector-emitter breakdown voltage | $V_{(BR)CEO}$ | $I_C=10mA, I_B=0$ | 50 | | | V |
| Emitter-base breakdown voltage | $V_{(BR)EBO}$ | $I_E=1mA, I_C=0$ | 5 | | | V |
| Collector cut-off current | I_{CBO} | $V_{CB}=50V, I_E=0$ | | | 1.0 | μA |
| Emitter cut-off current | I_{EBO} | $V_{EB}=5V, I_C=0$ | | | 1.0 | μA |
| DC current gain | $h_{FE(1)}$ | $V_{CE}=2V, I_C=0.5A$ | 70 | | 240 | |
| | $h_{FE(2)}$ | $V_{CE}=2V, I_C=1.5A$ | 40 | | | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C=1A, I_B=0.05A$ | | | 0.5 | V |
| Base-emitter saturation voltage | $V_{BE(sat)}$ | $I_C=1A, I_B=0.05A$ | | | 1.2 | V |
| Transition frequency | f_T | $V_{CE}=5V, I_C=0.5A$ | | 100 | | MHz |
| Collector output capacitance | C_{ob} | $V_{CB}=10V, I_E=0, f=1MHz$ | | 30 | | pF |

CLASSIFICATION OF $h_{FE(1)}$

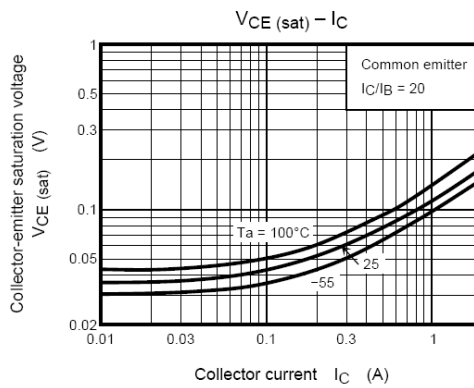
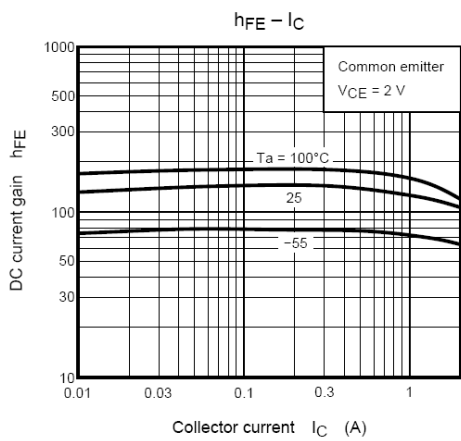
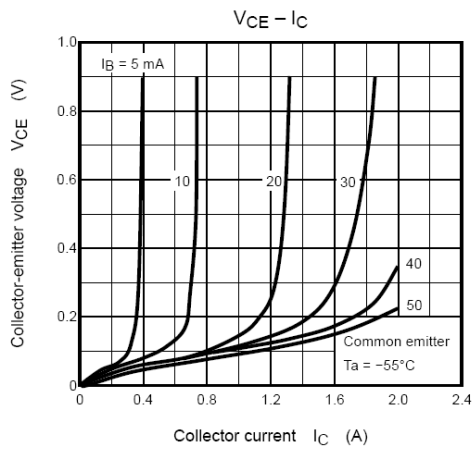
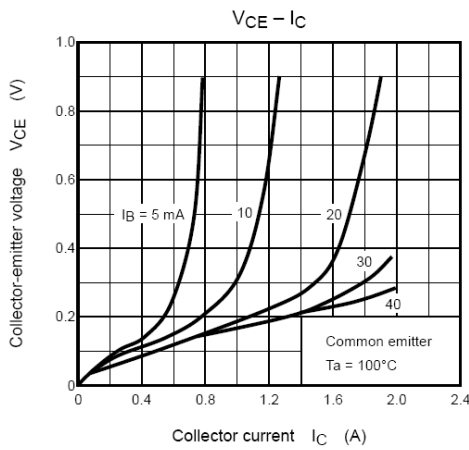
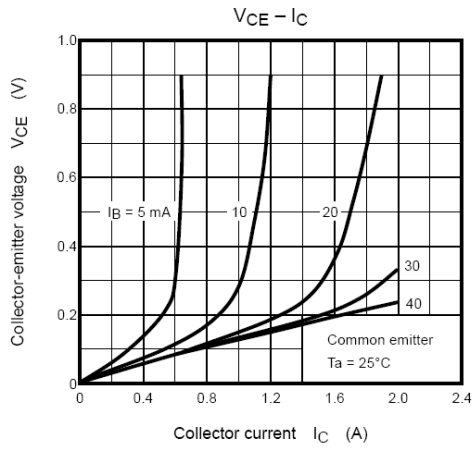
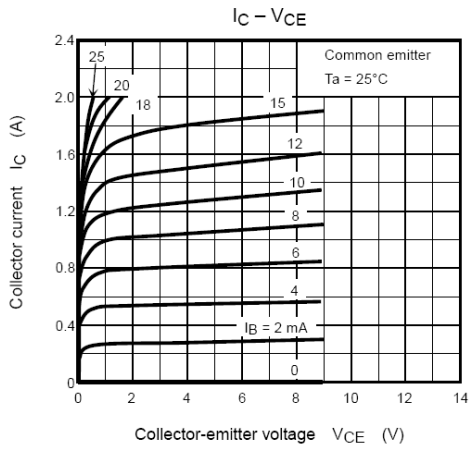
| | | |
|-------|--------|---------|
| Rank | O | Y |
| Range | 70-140 | 120-240 |



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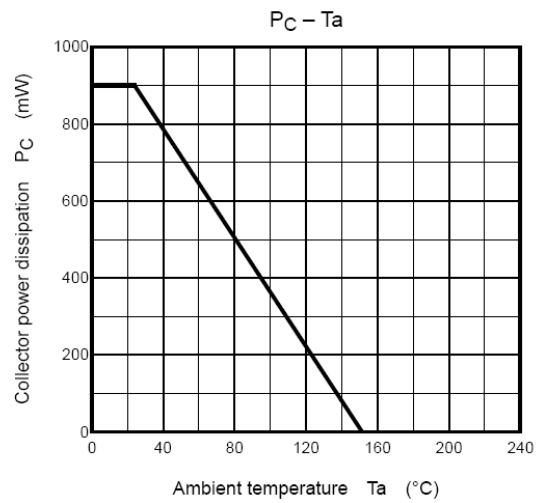
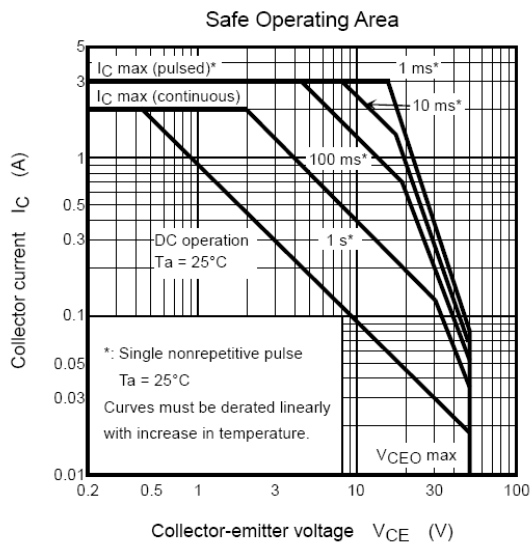
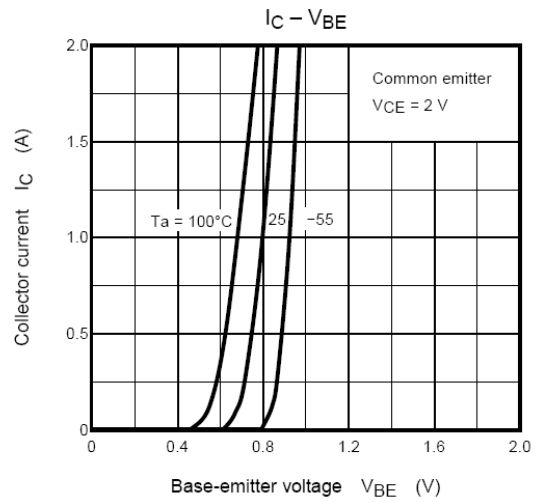
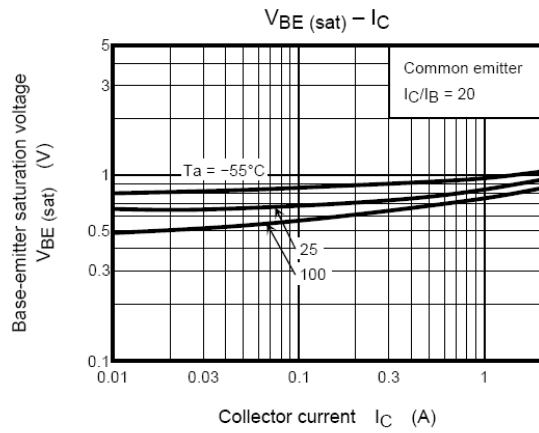
TYPICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified





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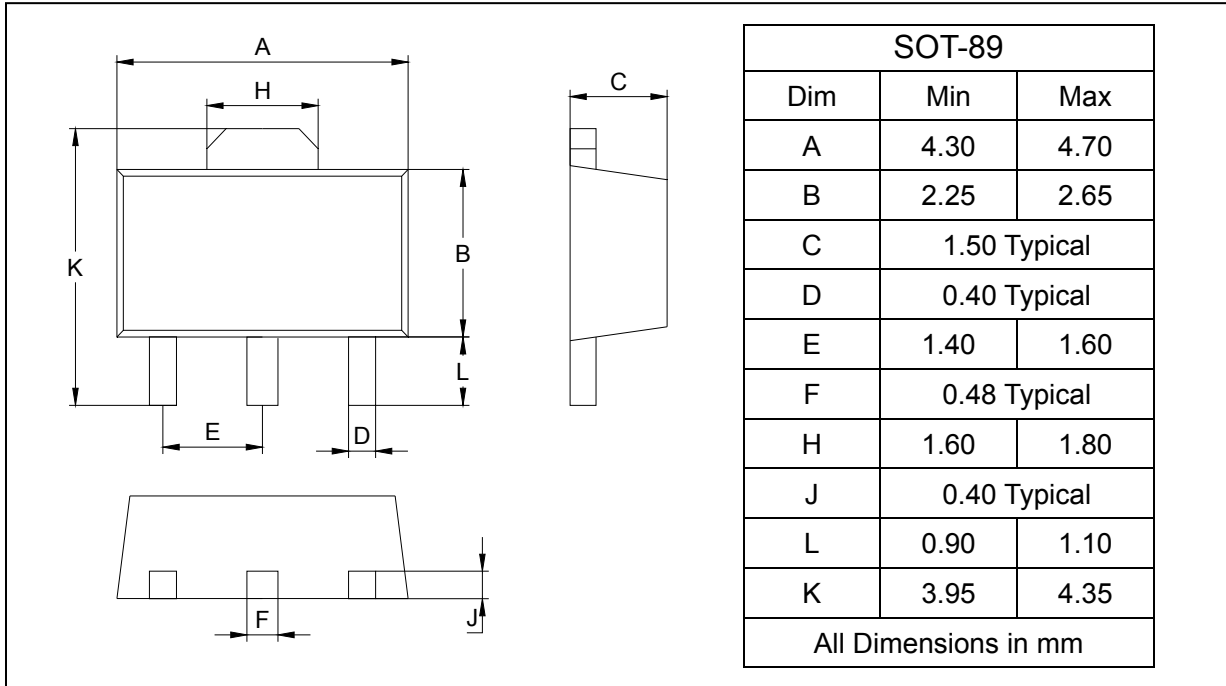
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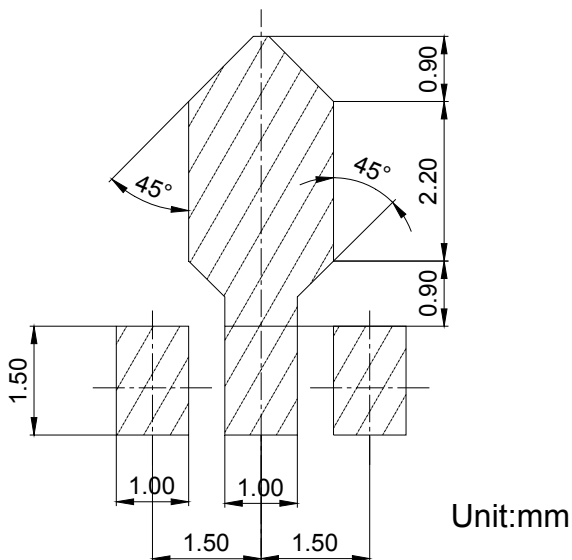
PACKAGE OUTLINE

Plastic surface mounted package

SOT-89



SOLDERING FOOTPRINT



PACKAGE INFORMATION

| Device | Package | Shipping |
|---------|---------|----------------|
| 2SC2655 | SOT-89 | 1000/Tape&Reel |