

2SA699, 2SA699A

Silicon PNP Epitaxial Planar Type

Power Amplifier

Complementary Pair with 2SC1226, 2SC1226A

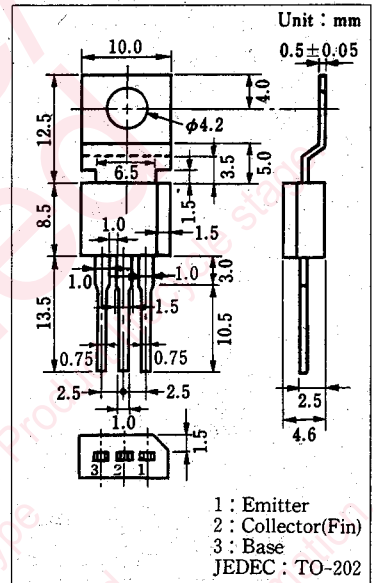
■ Feature

- 5W output in complementary pair with 2SC1226, 2SC1226A

■ Absolute Maximum Ratings (Ta=25°C)

| Item | Symbol | Value | Unit |
|---------------------------------------|------------------|------------|------|
| Collector-base voltage | 2SA699 | -40 | V |
| | 2SA699A | -50 | |
| Collector-emitter voltage | 2SA699 | -32 | V |
| | 2SA699A | -40 | |
| Emitter-base voltage | V _{EBO} | -5 | V |
| Peak collector current | I _{CP} | -3 | A |
| Base current | I _B | -0.6 | A |
| Collector power dissipation (Tc=25°C) | P _C | 10 | W |
| Junction temperature | T _j | 150 | °C |
| Storage temperature | T _{stg} | -55 ~ +150 | °C |

■ Package Dimensions

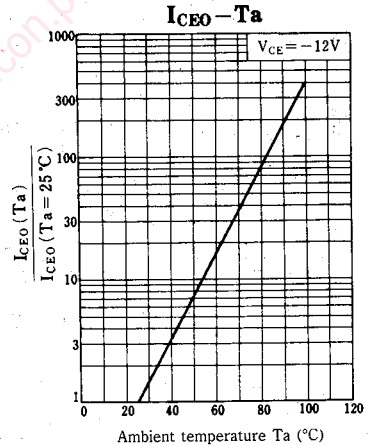
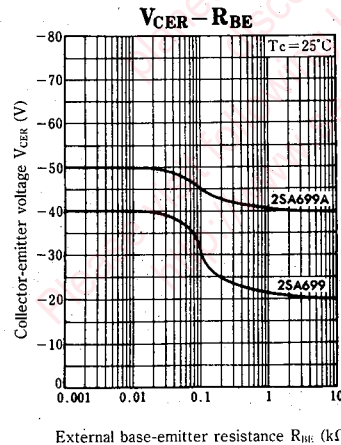
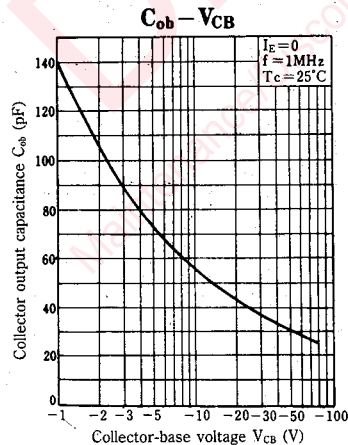
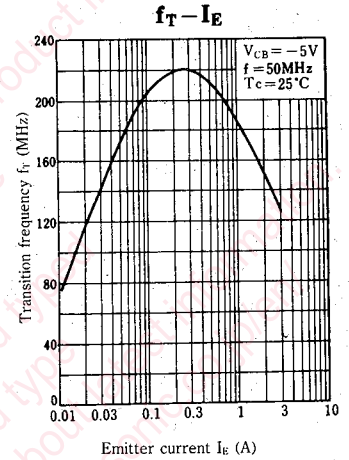
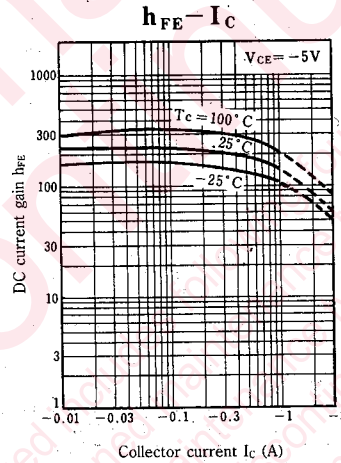
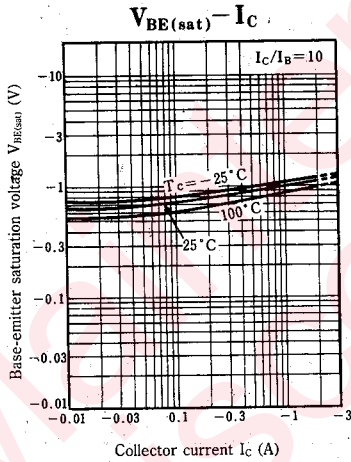
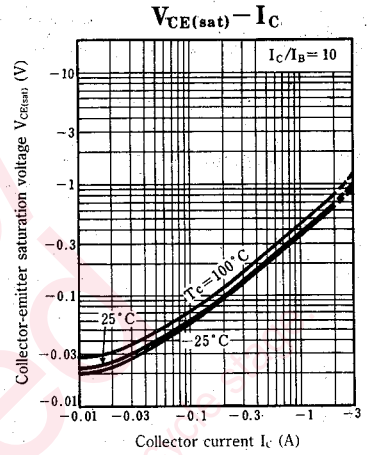
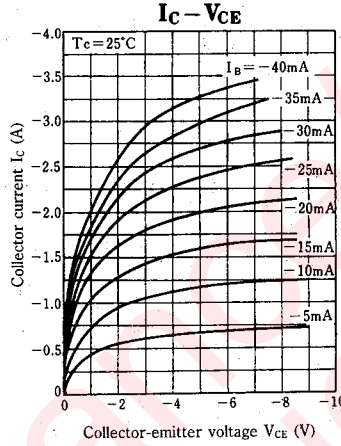
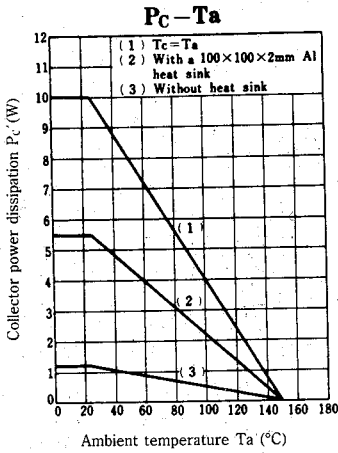


■ Electrical Characteristics (Tc=25°C)

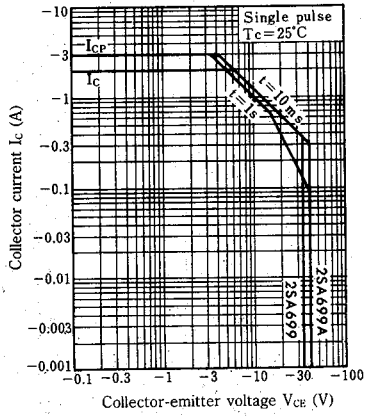
| Item | Symbol | Condition | min. | typ. | max. | Unit |
|--------------------------------------|----------------------|--|------|------|------|------|
| Collector cutoff current | I _{CBO} | V _{CB} = -20 V, I _E = 0 | | | -1 | μA |
| | I _{CEO} | V _{CE} = -12 V, I _B = 0 | | | -100 | |
| Emitter cutoff current | I _{EBO} | V _{EB} = -5 V, I _C = 0 | | | -100 | μA |
| Collector-base voltage | V _{CBO} | I _C = -1 mA, I _E = 0 | -40 | | | V |
| | | | -50 | | | |
| Collector-emitter voltage | V _{CEO} | I _C = -10 mA, I _B = 0 | -32 | | | V |
| | | | -40 | | | |
| DC current gain | h _{FE} * | V _{CE} = -5 V, I _C = -1 A | 50 | | 220 | |
| Collector-emitter saturation voltage | V _{CE(sat)} | I _C = -1.5A, I _B = -0.15A | | -0.4 | -1 | V |
| Base-emitter saturation voltage | V _{BE(sat)} | I _C = -2A, I _B = -0.2A | | | -1.5 | V |
| Transition frequency | f _T | V _{CB} = -5V, I _E = 0.5A, f = 200MHz | | 150 | | MHz |
| Collector output capacitance | C _{ob} | V _{CB} = -5 V, I _E = 0, f = 1 MHz | | 70 | | pF |

*h_{FE} Classifications

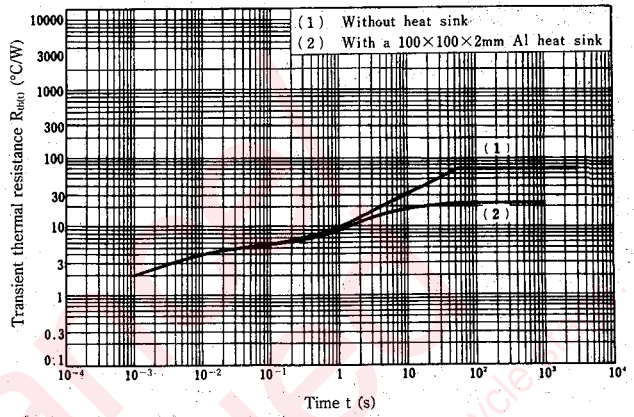
| Class | P | Q | R |
|-----------------|--------|--------|---------|
| h _{FE} | 50~100 | 80~160 | 100~220 |



Area of safe operation (ASO)



$R_{th}(t) - t$



Maintenance/Discontinued includes following four Product lifecycle
 planned maintenance type
 maintenance type
 planned discontinued type
 discontinued type
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