



TO-92 Plastic-Encapsulated Transistors

2SC1213 TRANSISTOR (NPN)

2SC1213A

FEATURE

Power dissipation

P_{CM} : 0.4 W ($T_{amb}=25^{\circ}C$)

Collector current

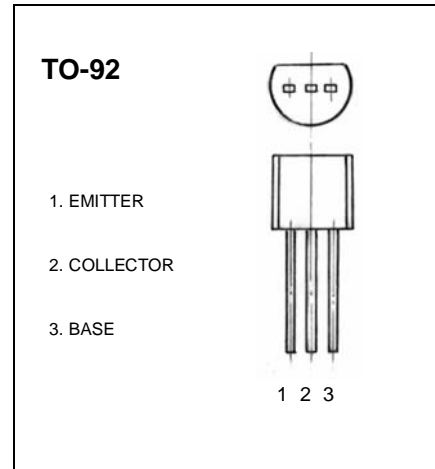
I_{CM} : 0.5 A

Collector-base voltage

$V_{(BR)CBO}$: 2SC1213 : 35 V
2SC1213A : 50 V

Operating and storage junction temperature range

T_J, T_{stg} : $-55^{\circ}C$ to $+150^{\circ}C$



ELECTRICAL CHARACTERISTICS($T_{amb}=25^{\circ}C$ unless otherwise specified)

| Parameter | Symbol | Test conditions | MIN | TYP | MAX | UNIT |
|---|---------------|---------------------------------------|----------|-----|------|---------|
| Collector-base breakdown voltage 2SC1213 2SC1213A | $V_{(BR)CBO}$ | $I_C=10\mu A, I_E=0$ | 35 50 | | | V |
| Collector-emitter breakdown voltage 2SC1213 2SC1213A | $V_{(BR)CEO}$ | $I_C=1\text{ mA}, I_B=0$ | 35 50 | | | V |
| Emitter-base breakdown voltage | $V_{(BR)EBO}$ | $I_E=10\mu A, I_C=0$ | 4 | | | V |
| Collector cut-off current | I_{CBO} | $V_{CB}=20V, I_E=0$ | | | 0.5 | μA |
| DC current gain | $h_{FE(1)}$ | $V_{CE}=3V, I_C=10\text{ mA}$ | 60 | | 320 | |
| | $h_{FE(2)}$ | $V_{CE}=3V, I_C=500\text{ mA}$ | 10 | | | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C=150\text{ mA}, I_B=15\text{ mA}$ | | 0.2 | 0.6 | V |
| Base-emitter voltage | V_{BE} | $V_{CE}=3V, I_C=10\text{ mA}$ | | | 0.75 | V |

CLASSIFICATION OF $h_{FE(1)}$

| Rank | B | C | D |
|-------|--------|---------|---------|
| Range | 60-120 | 100-200 | 160-320 |