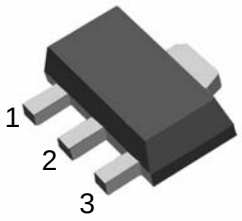
Transys Electronics LIMITED

# SOT-89 Plastic-Encapsulate Transistors

## 2SA1203 TRANSISTOR (PNP)

**SOT-89**

1. BASE
2. COLLECTOR
3. EMITTER




### FEATURES

Power dissipation

$P_{CM}$ : 0.5 W (Tamb=25℃)

Collector current

$I_{CM}$ : -1.5 A

Collector-base voltage

$V_{(BR)CBO}$ : -30 V

Operating and storage junction temperature range

$T_J$, $T_{stg}$: -55℃ to +150℃

### ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

| Parameter | Symbol | Test conditions | MIN | TYP | MAX | UNIT |
|---|---|---|---|---|---|---|
| **Collector-base breakdown voltage** | $V_{(BR)CBO}$ | Ic=-1mA, $I_E$=0 | -30 | | | V |
| **Collector-emitter breakdown voltage** | $V_{(BR)CEO}$ | Ic=-10mA, $I_B$=0 | -30 | | | V |
| **Emitter-base breakdown voltage** | $V_{(BR)EBO}$ | $I_E$=-1mA, $I_C$=0 | -5 | | | V |
| **Collector cut-off current** | $I_{CBO}$ | $V_{CB}$=-30V, $I_E$=0 | | | -0.1 | μA |
| **Emitter cut-off current** | $I_{EBO}$ | $V_{EB}$=-5V, $I_C$=0 | | | -0.1 | μA |
| **DC current gain** | $h_{FE(1)}$ | $V_{CE}$=-2V, $I_C$=-500mA | 100 | | 320 | |
| **Collector-emitter saturation voltage** | $V_{CE(sat)}$ | $I_C$=-1.5A, $I_B$=-30mA | | | -2 | V |
| **Base-emitter voltage** | $V_{BE}$ | $V_{CE}$=-2V, $I_C$=-500mA | | | -1 | V |
| **Transition frequency** | $f_T$ | $V_{CE}$=-2V, $I_C$=-500mA | | 120 | | MHz |
| **Collector output capacitance** | $C_{ob}$ | $V_{CB}$=-10V, $I_E$=0, f=1MHz | | | 50 | pF |

### CLASSIFICATION OF $h_{FE(1)}$

| **Rank** | O | Y |
|---|---|---|
| **Range** | 100-200 | 160-320 |
| **Marking** | HO1 | HY1 |

## Typical Characteristics 2SA1203