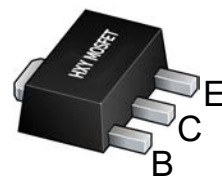




## Features

- Collector Current:  $I_C=2A$
- Power Dissipation of 500mw

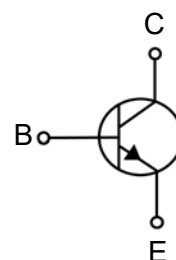


SOT-89  
(TO-243AA)

## Package Marking and Ordering Information

| Product ID | Pack                 | Qty(PCS) |
|------------|----------------------|----------|
| 2SC2873    | SOT-89<br>(TO-243AA) | 1000     |

| Marking |         |
|---------|---------|
| 70-140  | 120-240 |
| MO      | MY      |



## Maxmim Ratings (Ta=25°C unless otherwise noted)

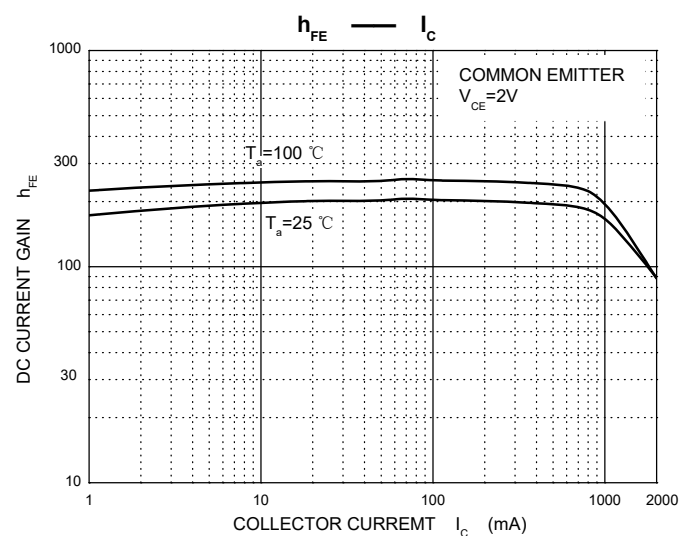
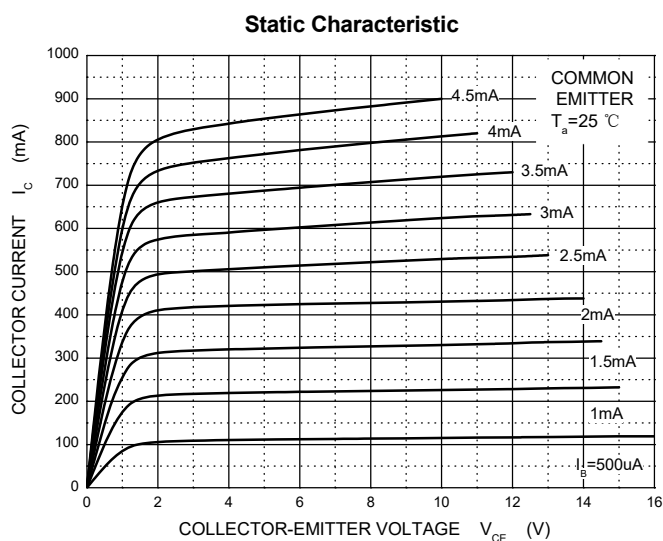
| Parameter                                   | Symbol          | Limit    | Unit |
|---------------------------------------------|-----------------|----------|------|
| Collector-Base Voltage                      | $V_{CBO}$       | 50       | V    |
| Collector-Emitter Voltage                   | $V_{CEO}$       | 50       | V    |
| Emitter-Base Voltage                        | $V_{EBO}$       | 5        | V    |
| Collector Current                           | $I_C$           | 2        | A    |
| Collector Power Dissipation                 | $P_C$           | 500      | mW   |
| Thermal Resistance From Junction To Ambient | $R_{\theta JA}$ | 250      | °C/W |
| Junction Temperature                        | $T_j$           | 150      | °C   |
| Storage Temperature                         | $T_{stg}$       | -55~+150 | °C   |

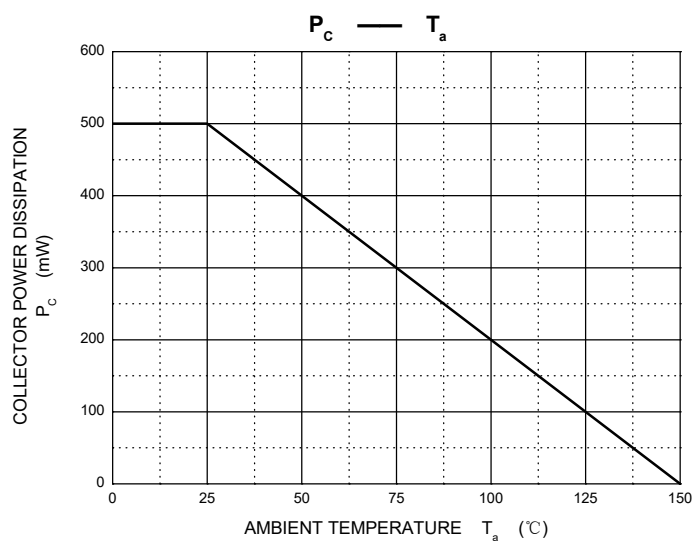
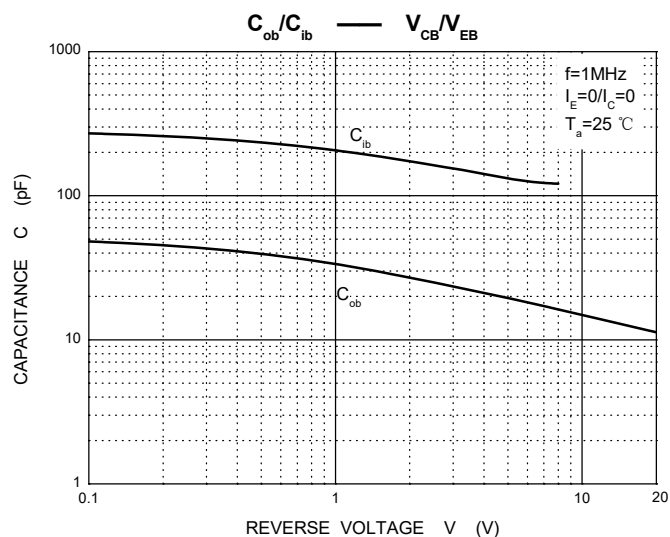
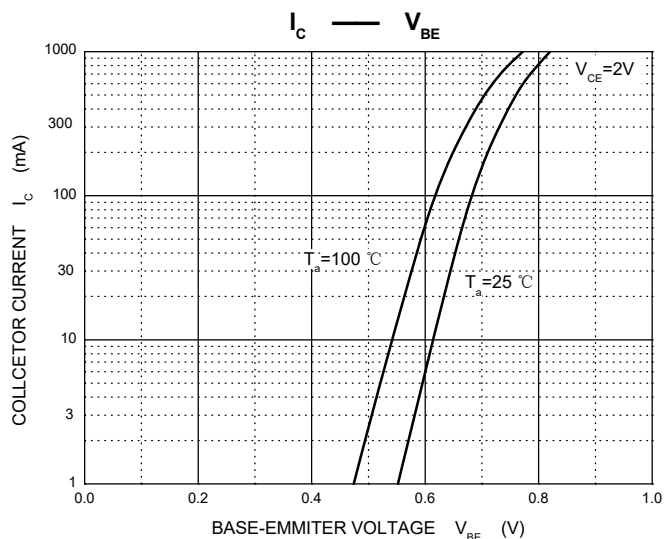
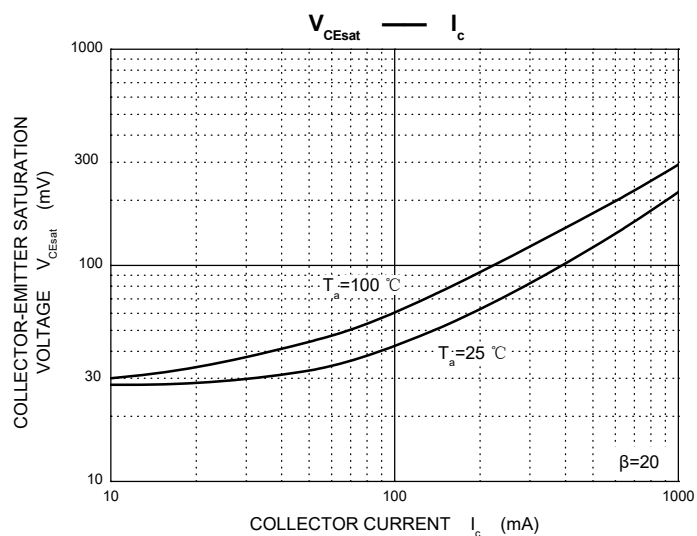
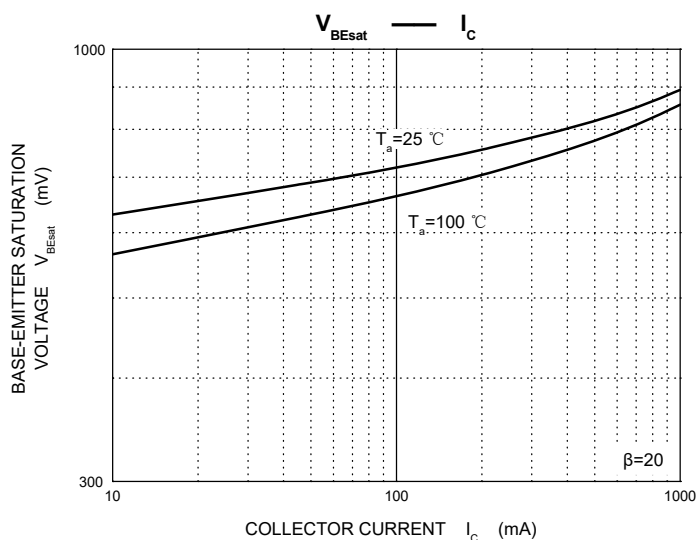


### Electrcal Charcteristics (Ta=25°Cunless otherwise specified)

| Parameter                            | Symbol        | Test conditions             | Min | Typ | Max | Unit    |
|--------------------------------------|---------------|-----------------------------|-----|-----|-----|---------|
| Collector-base breakdown voltage     | $V_{(BR)CBO}$ | $I_C=100\mu A, I_E=0$       | 50  |     |     | V       |
| Collector-emitter breakdown voltage  | $V_{(BR)CEO}$ | $I_C=1mA, I_B=0$            | 50  |     |     | V       |
| Emitter-base breakdown voltage       | $V_{(BR)EBO}$ | $I_E=100\mu A, I_C=0$       | 5   |     |     | V       |
| Collector cut-off current            | $I_{CBO}$     | $V_{CB}=50V, I_E=0$         |     |     | 0.1 | $\mu A$ |
| Emitter cut-off current              | $I_{EBO}$     | $V_{EB}=5V, I_C=0$          |     |     | 0.1 | $\mu A$ |
| DC current gain                      | $h_{FE(1)}$   | $V_{CE}=2V, I_C=0.5A$       | 70  |     | 240 |         |
|                                      | $h_{FE(2)}$   | $V_{CE}=2V, I_C=2A$         | 20  |     |     |         |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C=1A, I_B=50mA$          |     |     | 0.5 | V       |
| Base-emitter saturation voltage      | $V_{BE(sat)}$ | $I_C=1A, I_B=50mA$          |     |     | 1.2 | V       |
| Transition frequency                 | $f_T$         | $V_{CE}=2V, I_C=0.5A$       |     | 120 |     | MHz     |
| Collector output capacitance         | $C_{ob}$      | $V_{CB}=10V, I_E=0, f=1MHz$ |     | 30  |     | pF      |

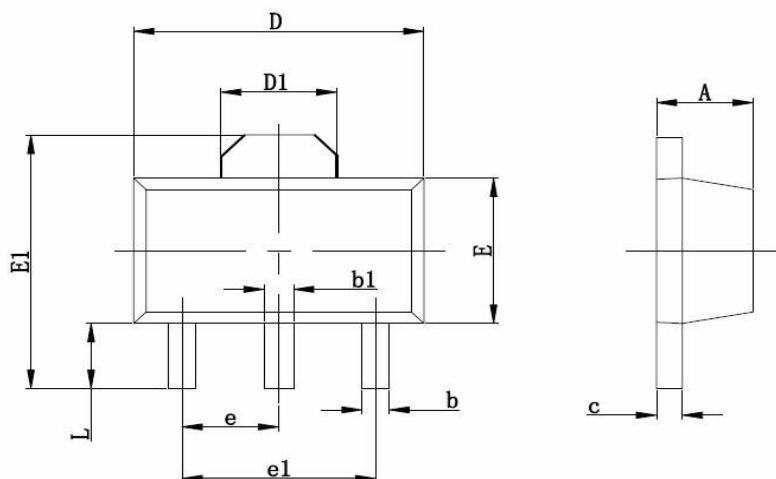
### Typical Characteristics







## SOT-89(TO-243AA) Package Outline Dimensions



| Symbol | Dimensions In Millimeters |       | Dimensions In Inches |       |
|--------|---------------------------|-------|----------------------|-------|
|        | Min                       | Max   | Min                  | Max   |
| A      | 1.400                     | 1.600 | 0.055                | 0.063 |
| b      | 0.320                     | 0.520 | 0.013                | 0.020 |
| b1     | 0.400                     | 0.580 | 0.016                | 0.023 |
| c      | 0.350                     | 0.440 | 0.014                | 0.017 |
| D      | 4.400                     | 4.600 | 0.173                | 0.181 |
| D1     | 1.550 REF.                |       | 0.061 REF.           |       |
| E      | 2.300                     | 2.600 | 0.091                | 0.102 |
| E1     | 3.940                     | 4.250 | 0.155                | 0.167 |
| e      | 1.500 TYP.                |       | 0.060 TYP.           |       |
| e1     | 3.000 TYP.                |       | 0.118 TYP.           |       |
| L      | 0.900                     | 1.200 | 0.035                | 0.047 |



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