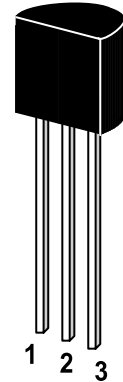


# ST 2SC1383 / 2SC1384

## NPN Silicon Epitaxial Planar Transistor

For low-frequency power amplification and driver Amplification. Complementary to 2SA683 to and 2SA684.

On special request, these transistors can be manufactured in different pin configurations.

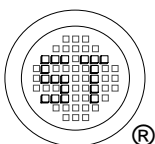


1. Emitter 2. Collector 3. Base

TO-92 Plastic Package  
Weight approx. 0.19g

### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

|                           | Symbol    | Value       | Unit             |   |
|---------------------------|-----------|-------------|------------------|---|
| Collector Base Voltage    | 2SC1383   | $V_{CBO}$   | 30               | V |
|                           | 2SC1384   | $V_{CBO}$   | 60               | V |
| Collector Emitter Voltage | 2SC1383   | $V_{CEO}$   | 25               | V |
|                           | 2SC1384   | $V_{CEO}$   | 50               | V |
| Emitter Base Voltage      | $V_{EBO}$ | 5           | V                |   |
| Peak Collector Current    | $I_{CP}$  | 1.5         | A                |   |
| Collector Current         | $I_C$     | 1           | A                |   |
| Power Dissipation         | $P_{tot}$ | 1           | W                |   |
| Junction Temperature      | $T_j$     | 150         | $^\circ\text{C}$ |   |
| Storage Temperature Range | $T_s$     | -55 to +150 | $^\circ\text{C}$ |   |



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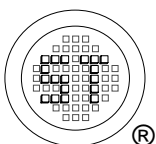


Dated : 07/12/2002

# ST 2SC1383 / 2SC1384

## Characteristics at $T_{amb}=25\text{ }^{\circ}\text{C}$

|   | Symbol        | Min.      | Typ. | Max. | Unit          |   |
|---|---------------|-----------|------|------|---------------|---|
| DC Current Gain<br>at $I_C=500\text{mA}$ , $V_{CE}=10\text{V}$                            | Q             | $h_{FE}$  | 85   | -    | 170           | - |
|   | R             | $h_{FE}$  | 120  | -    | 240           | - |
|   | S             | $h_{FE}$  | 170  | -    | 340           | - |
|   |               | $h_{FE}$  | 50   | 100  | -             | - |
| at $I_C=1\text{A}$ , $V_{CE}=5\text{V}$   |               |           |      |      |               |   |
| Collector Cutoff Current<br>at $V_{CB}=20\text{V}$  | $I_{CBO}$     | -         | -    | 0.1  | $\mu\text{A}$ |   |
| Collector Base Voltage<br>at $I_C=10\mu\text{A}$  | 2SC1383       | $V_{CBO}$ | 30   | -    | -             | V |
|   | 2SC1384       | $V_{CBO}$ | 60   | -    | -             | V |
| Collector Emitter Voltage<br>at $I_C=2\text{mA}$  | 2SC1383       | $V_{CEO}$ | 25   | -    | -             | V |
|   | 2SC1384       | $V_{CEO}$ | 50   | -    | -             | V |
| Emitter Base Voltage<br>at $I_E=10\mu\text{A}$  | $V_{EBO}$     | 5         | -    | -    | V             |   |
| Collector Saturation Voltage<br>at $I_C=500\text{mA}$ , $I_B=50\text{mA}$                 | $V_{CE(sat)}$ | -         | 0.2  | 0.4  | V             |   |
| Base Saturation Voltage<br>at $I_C=500\text{mA}$ , $I_B=50\text{mA}$                      | $V_{BE(sat)}$ | -         | 0.85 | 1.2  | V             |   |
| Gain Bandwidth Product<br>at $V_{CB}=10\text{V}$ , $I_E=-50\text{mA}$ , $f=200\text{MHz}$ | $f_T$         | -         | 200  | -    | MHz           |   |
| Output Capacitance<br>at $V_{CB}=10\text{V}$ , $f=1\text{MHz}$                            | $C_{OB}$      | -         | 11   | 20   | pF            |   |



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ISO/TS 16949 : 2002  
Certificate No. 05103



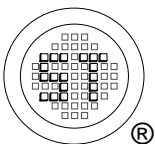
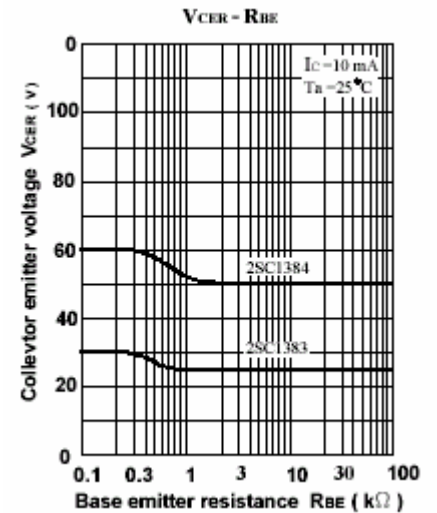
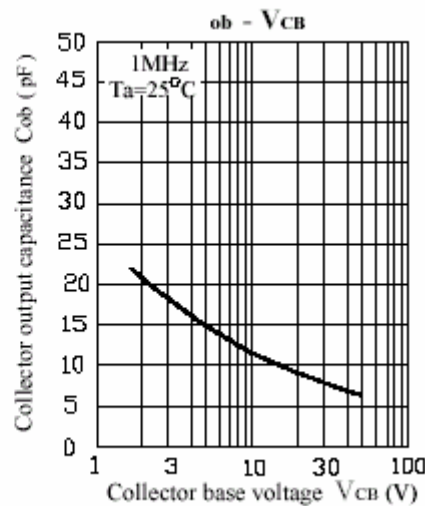
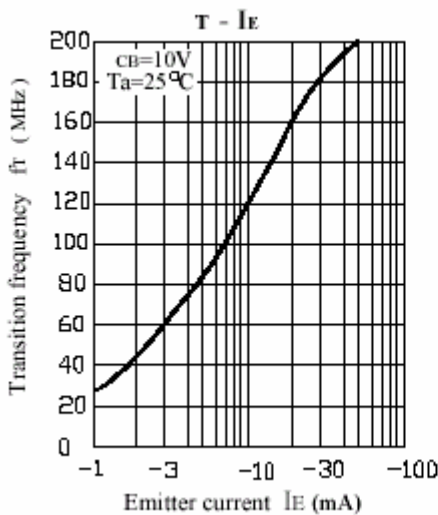
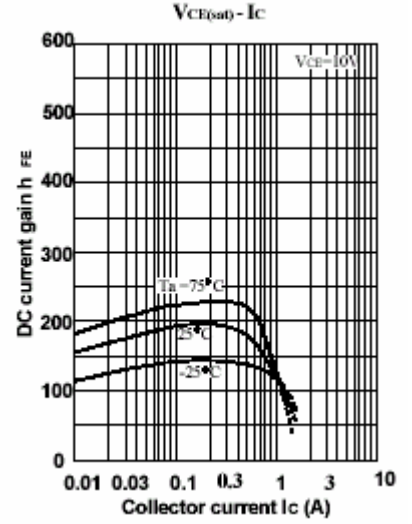
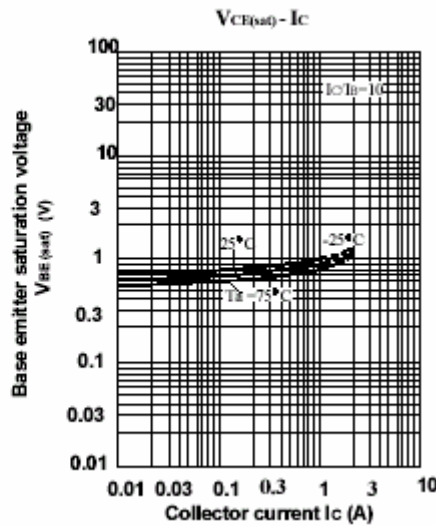
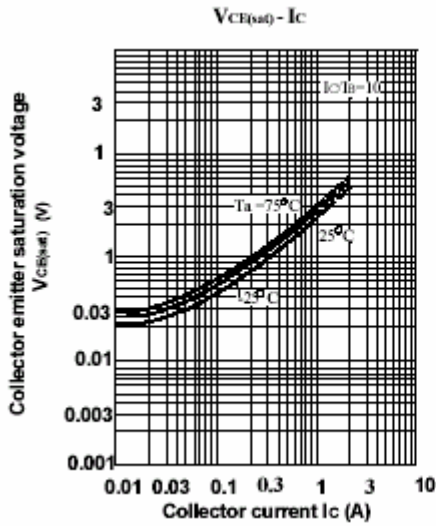
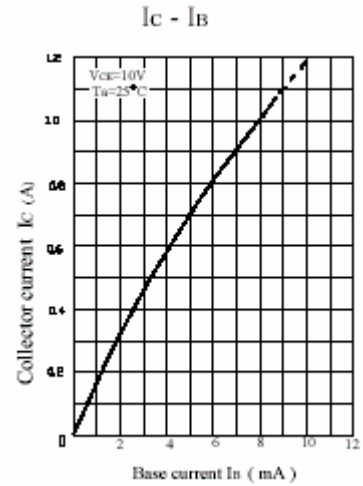
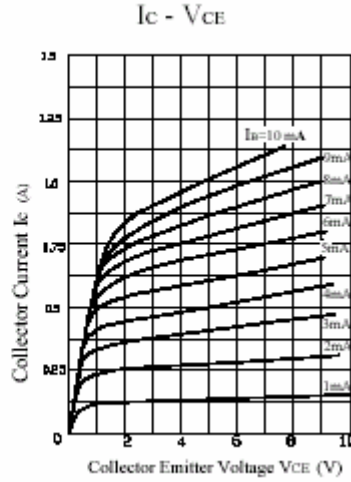
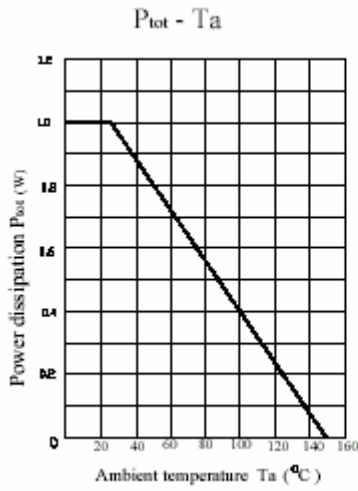
ISO 14001:2004  
Certificate No. 7116



ISO 9001:2000  
Certificate No. 0506098

Dated : 07/12/2002

# ST 2SC1383 / 2SC1384



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ISO/TS 16949 : 2002  
Certificate No. 05103

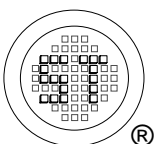
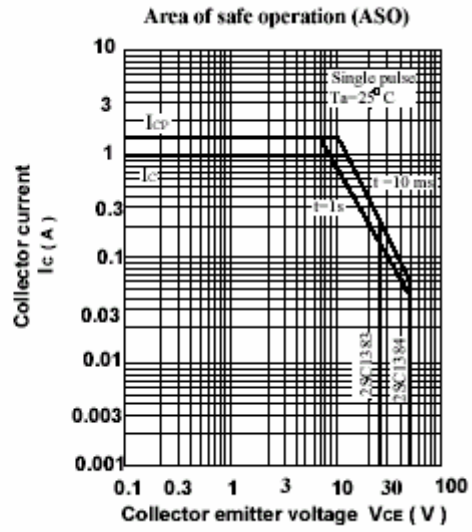
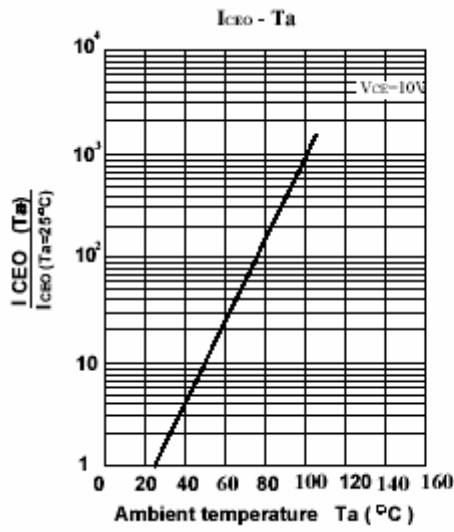


ISO 14001:2004  
Certificate No. 7116



ISO 9001:2000  
Certificate No. 0506098

# ST 2SC1383 / 2SC1384



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