# 2SC3279 NPN Silicon Epitaxial Planar Transistor

for storobo flash and medium power amplifier applications.

The transistor is subdivided into four groups L, M, N and P, according to its DC current gain.

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 (Ta=25°C)

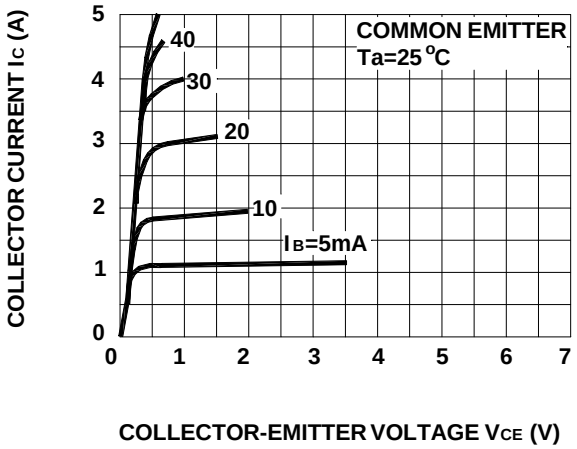
| Parameter | | Symbol | Value | Unit |
|---|---|---|---|---|
| Collector Base Voltage | | $V_{CBO}$ | 30 | V |
| Collector Emitter Voltage | | $V_{CES}$ | 30 | V |
| | | $V_{CEO}$ | 10 | |
| Emitter Base Voltage | | $V_{EBO}$ | 6 | V |
| Collector Current | Pulsed(Note 1) | $I_{CP}$ | 5 | A |
| | DC | $I_C$ | 2 | A |
| Base Current | | $I_B$ | 0.2 | A |
| Power Dissipation | | $P_{tot}$ | 750 | mW |
| Junction Temperature | | $T_j$ | 150 | °C |
| Storage Temperature Range | | $T_S$ | -55 to +150 | °C |

Note 1: Pulse Width=10ms (Max.), Duty Cycle=30%(Max.)

## Characteristics at $T_{amb}$=25 °C

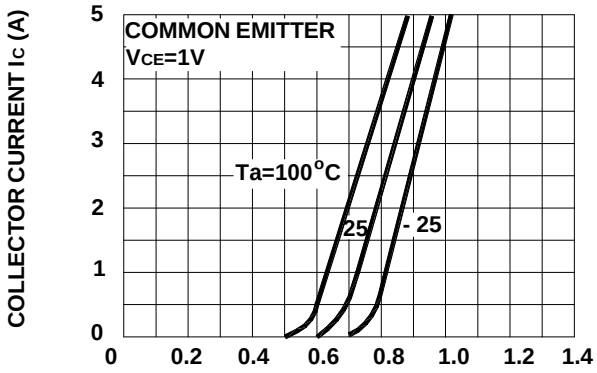
| Parameter | | Symbol | Min. | Typ. | Max. | Unit |
|---|---|---|---|---|---|---|
| DC Current Gain | | | | | | |
| at $V_{CE}$=1V, $I_C$=0.5A | L | $h_{FE}$ | 140 | - | 240 | - |
| | M | $h_{FE}$ | 200 | - | 330 | - |
| | N | $h_{FE}$ | 300 | - | 450 | - |
| | P | $h_{FE}$ | 420 | - | 600 | - |
| at $V_{CE}$=1V, $I_C$=2A | | $h_{FE}$ | 70 | 200 | - | - |
| Collector Cutoff Current<br>at $V_{CB}$=30V | | $I_{CBO}$ | - | - | 0.1 | μA |
| Emitter Cutoff Current<br>at $V_{EB}$=6V | | $I_{EBO}$ | - | - | 0.1 | μA |
| Collector-Emitter Breakdown Voltage<br>at $I_C$=10mA | | $V_{(BR)CEO}$ | 10 | - | - | V |
| Emitter-Base Breakdown Voltage<br>at $I_E$=1mA | | $V_{(BR)EBO}$ | 6 | - | - | V |
| Collector Output Capacitance<br>at $V_{CB}$=10V, f=1.0MHz | | Cob | - | 27 | - | pF |
| Collector to Emitter Saturation Voltage<br>at $I_C$=2A, $I_B$=50mA | | $V_{CE(sat)}$ | - | 0.2 | 0.5 | V |
| Base-Emitter Voltage<br>at $V_{CE}$=1V, $I_C$=2A | | $V_{BE}$ | - | 0.86 | 1.5 | V |
| Transition Frequency<br>at $V_{CE}$=1V, $I_C$=0.5A | | $f_T$ | - | 150 | - | MHz |

$I_C$ - $V_{CE}$



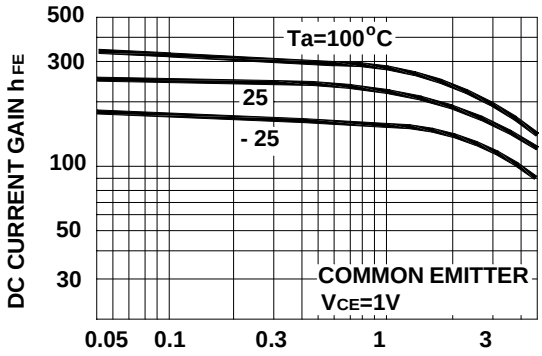

COLLECTOR-EMITTER VOLTAGE $V_{CE}$ (V)

$I_C$ - $V_{BE}$



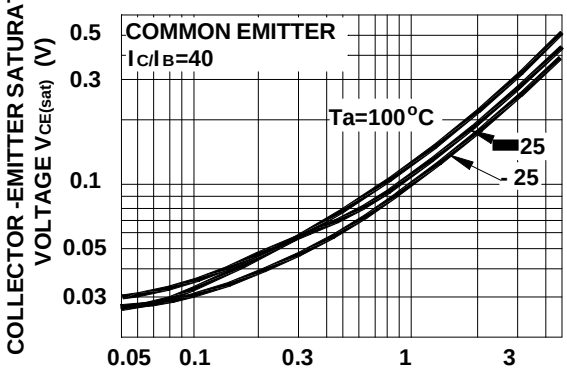

BASE-EMITTER VOLTAGE $V_{BE}$ (V)

$h_{FE}$ - $I_C$



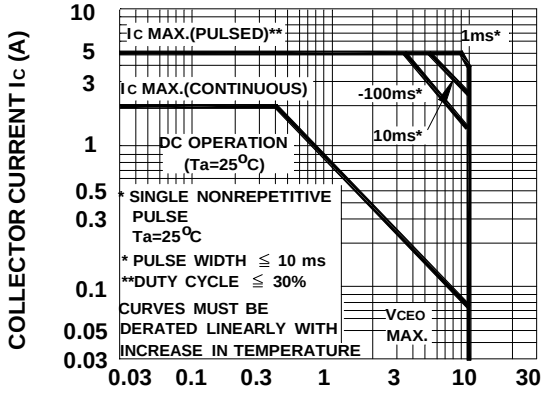

COLLECTOR CURRENT $I_C$ (A)

$V_{CE(sat)}$ - $I_C$



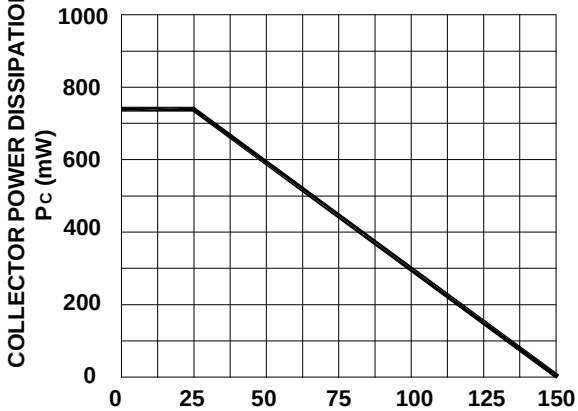

COLLECTOR CURRENT $I_C$ (A)

SAFE OPERATING AREA




COLLECTOR-EMITTER VOLTAGE $V_{CE}$ (V)

Pc - Ta




AMBIENT TEMPERATURE $T_a$ (°C)