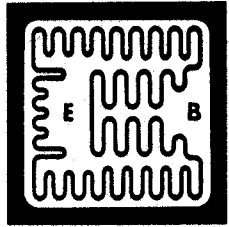


CHIP NUMBER

106



.116"
(2.95mm)

.116"
(2.95mm)

Base: .012" x .044" (0.31mm x 1.12mm)
Emitter: .058" x .012" (1.47mm x 0.31mm)

NPN EPITAXIAL PLANAR POWER TRANSISTOR**

CONTACT METALLIZATION

Base and emitter: > 30,000 Å Aluminum
Collector: Gold
(Polished silicon or "Chrome Nickel Silver" also available)

Also available on:

MOLY PEDESTAL

Size: .220" Diameter (5.59mm)
Thickness: .010" (0.25mm)

BeO PEDESTAL

Size: .142" x .178" (3.61mm x 4.52mm)
Thickness: .028" (0.71mm)

ASSEMBLY RECOMMENDATIONS

It is advisable that:

- a) the chip be eutectically mounted with gold silicon preform 98/2%.
- b) 8 mil (0.203mm) aluminum wire be ultrasonically attached to the base and emitter contacts.

TYPICAL ELECTRICAL CHARACTERISTICS AT 25°C

The following typical electrical characteristics apply for a completely finished component employing the chip number 106 in a TO-66 or equivalent case:

V _{CEO}	V _{CE(s)} @	I _C	I _B	h _{FE} @	I _C	V _{CE}
>30V	<1V	8A	0.8A	>10	10A	5V
>45V	<1V	8A	0.8A	>10	10A	5V
>60V	<1V	8A	0.8A	>10	10A	5V
>80V	<1V	8A	0.8A	>10	10A	5V

V _{CEO}	V _{CEX}	V _{EBO}	f _T	C _{OBO}	θ _{JC}
>30V	35V	>5V	60MHz	<180pF	<2.5°C/W
>45V	50V	>5V	60MHz	<180pF	<2.5°C/W
>60V	65V	>5V	60MHz	<180pF	<2.5°C/W
>80V	85V	>5V	60MHz	<180pF	<2.5°C/W

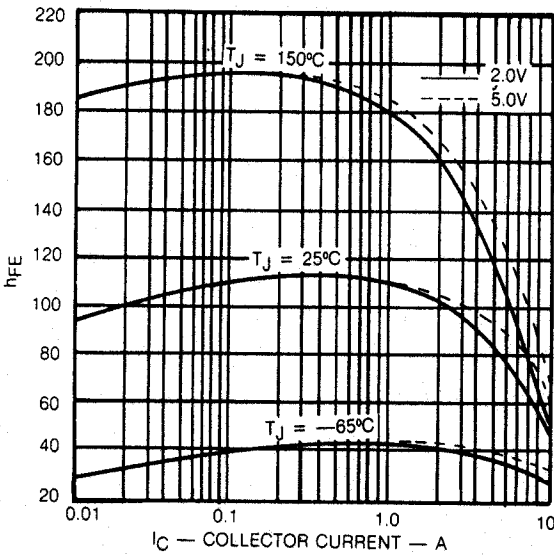
TYPICAL DEVICE TYPES: 2N5552, SDT06523, SDT06623

h_{FE} available at I_C = 2A, V_{CE} = 2V >35 or at 4A, 2V >20

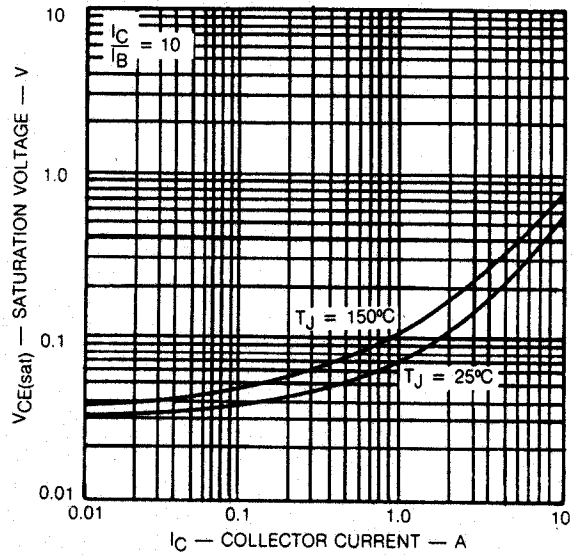
**The respective PNP complement is chip number 204.

LOW TO MEDIUM VOLTAGE, FAST SWITCHING
CHIP TYPE 106

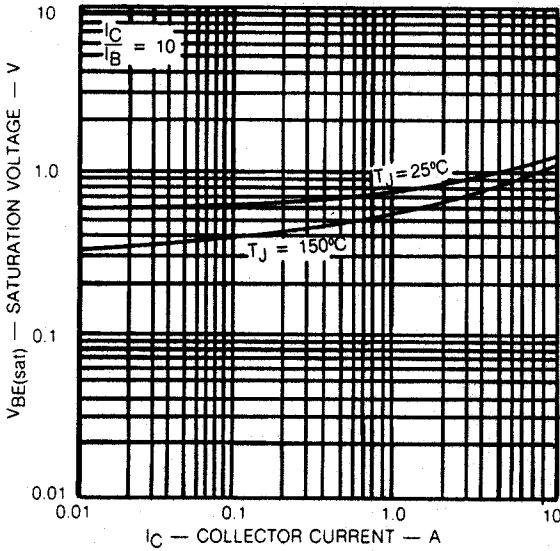
TYPICAL STATIC FORWARD CURRENT TRANSFER RATIO



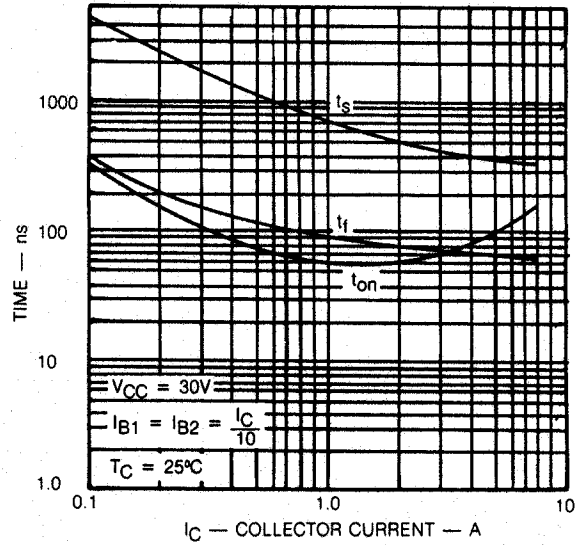
TYPICAL COLLECTOR EMITTER SATURATION VOLTAGE



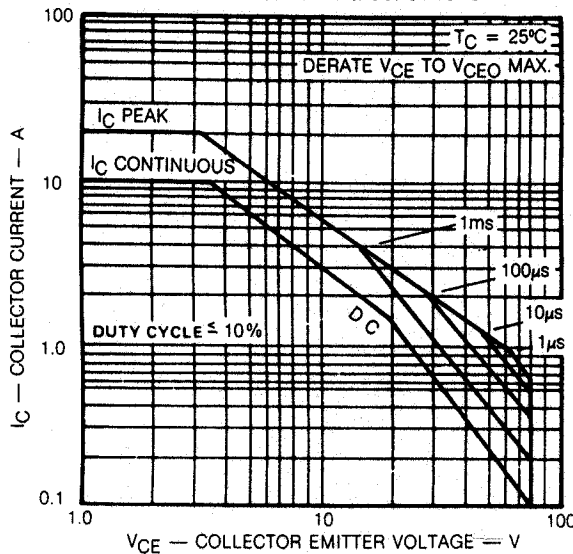
TYPICAL BASE EMITTER SATURATION VOLTAGE



TYPICAL SWITCHING TIME



MAXIMUM OPERATING CONDITIONS



NOTE:
PERFORMANCE CURVES
REPRESENT LOW TO
MIDDLE CEO VOLTAGE
RANGE OF THIS PRODUCT