

PRODUCT CATALOG

VERY HIGH VOLTAGE, FAST SWITCHING

CHIP NUMBER

100



.040"
(1.02mm)

.039"
(0.99mm)

Base: .0065" x .007" (0.17mm x 0.18mm)
Emitter: .005" x .006" (0.13mm x 0.15mm)

NPN TRIPLE DIFFUSED PLANAR POWER TRANSISTOR**

CONTACT METALLIZATION

Base and emitter: > 12,000 Å Aluminum

Collector: Gold

(Polished silicon or "Chrome Nickel Silver" also available)

Also available on:

MOLY PEDESTAL

Size .140" Diameter (3.56mm)
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:

- the chip be eutectically mounted with gold silicon preform 98/2%.
- 2 mil (0.051mm) 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 100 in a TO-5 or equivalent case:

V _{CEO}	V _{CE(s)} @	I _C	I _B	h _{FE} @	I _C	V _{CE}
> 200V	< 0.4V	50mA	5mA	> 40	20mA	5V
> 250V	< 0.4V	50mA	5mA	> 40	20mA	5V
> 300V	< 0.4V	50mA	5mA	> 40	20mA	5V
> 350V	< 0.4V	50mA	5mA	> 40	20mA	5V
> 400V	< 0.4V	50mA	5mA	> 40	20mA	5V

V _{CEO}	V _{CEX}	V _{EBO}	f _T	C _{OBO}	θ _{JC}
> 200V	225V	> 6V	15MHz	< 10pF	< 15°C/W
> 250V	275V	> 6V	15MHz	< 10pF	< 15°C/W
> 300V	325V	> 6V	15MHz	< 10pF	< 15°C/W
> 350V	375V	> 6V	15MHz	< 10pF	< 15°C/W
> 400V	425V	> 6V	15MHz	< 10pF	< 15°C/W

TYPICAL DEVICE TYPES: JAN2N3439, JAN2N3440

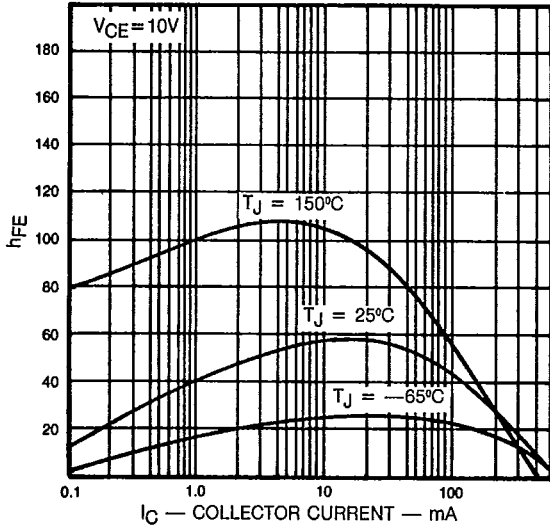
h_{FE} ranges available at I_C = 50mA, V_{CE} = 5V, 20-80, 30-120, 40-160

**The respective PNP complement is Chip number 200

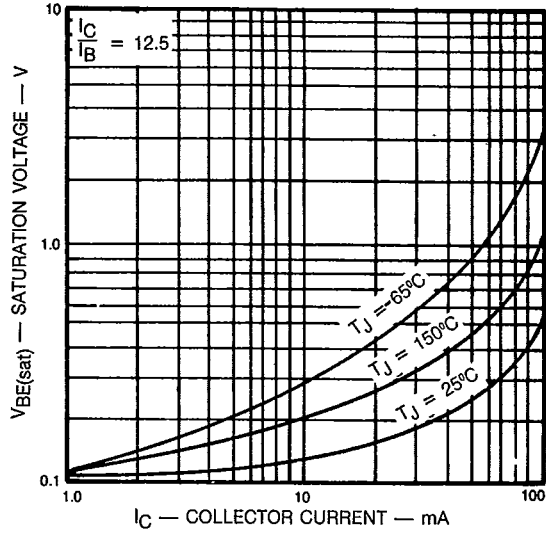


CHIP TYPE 100

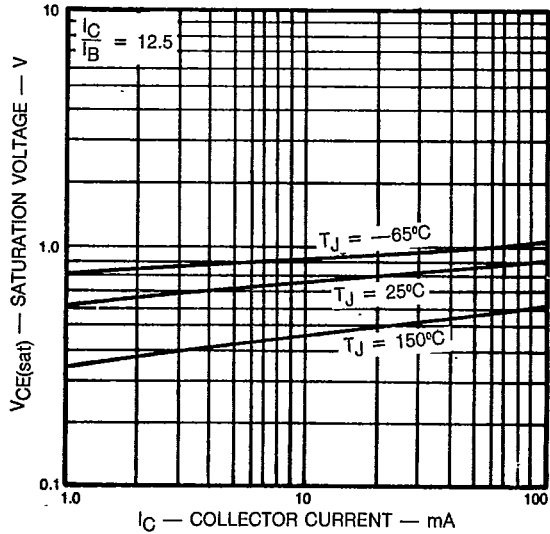
TYPICAL STATIC FORWARD CURRENT TRANSFER RATIO



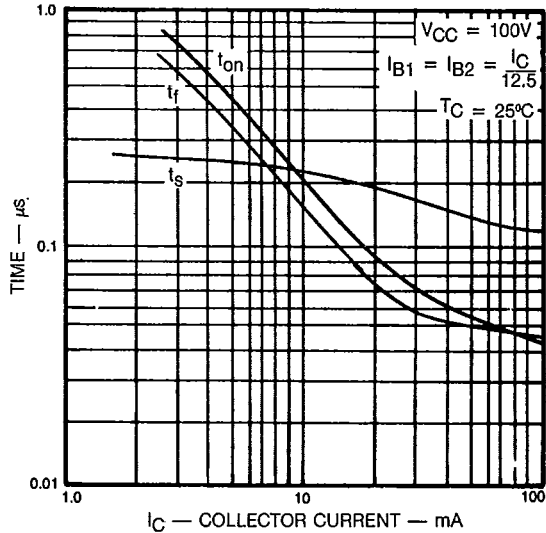
TYPICAL BASE EMITTER SATURATION VOLTAGE



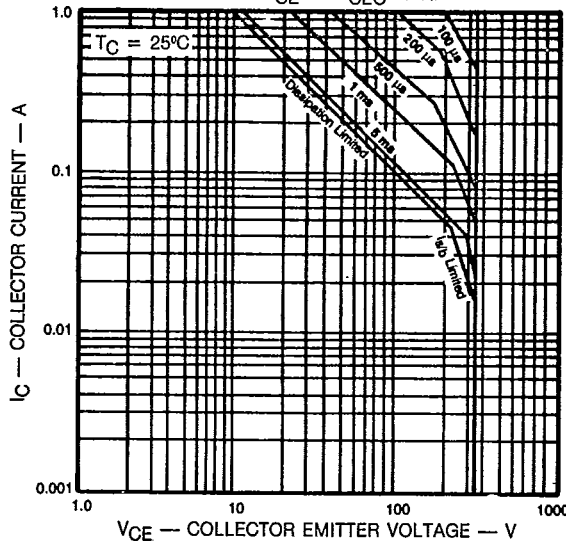
TYPICAL COLLECTOR EMITTER SATURATION VOLTAGE



TYPICAL SWITCHING TIME



MAXIMUM OPERATING CONDITIONS
DERATE V_{CE} TO V_{CEO} MAX.



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