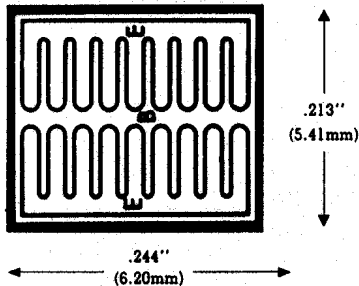


MEDIUM TO HIGH VOLTAGE, FAST SWITCHING

CHIP NUMBER

179



Base: .010" x .211" (0.25mm x 5.36mm)
 Emitter: .012" x .195" (0.31mm x 4.95mm)

NPN EPITAXIAL PLANAR POWER TRANSISTOR** (FORMERLY 79)

CONTACT METALLIZATION

Base and emitter: > 50,000 Å Aluminum
 Collector: Gold
 (Polished silicon or "Chrome Nickel Silver" also available)

Also available on:

MOLY PEDESTAL

Size: .375" Diameter (9.53mm)
 Thickness: .020" (0.51mm)

BeO PEDESTAL

Size: .250" x .312" (6.35mm x 7.93mm)
 Thickness: .042" (1.07mm)

ASSEMBLY RECOMMENDATIONS

It is advisable that:

- a) the chip be eutectically mounted with gold silicon preform 98/2%.
- b) 12 mil (0.305mm) 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 179 in a TO-3 or equivalent case:

V _{CEO}	V _{CE(s)} @	I _C	I _B	h _{FE} @	I _C	V _{CE}
> 60V	<0.5V	25A	2.5A	>10	50A	5V
> 80V	<0.5V	25A	2.5A	>10	50A	5V
>100V	<0.5V	25A	2.5A	>10	50A	5V
>120V	<0.5V	25A	2.5A	>10	50A	5V
>150V	<0.5V	20A	2.0A	> 5	50A	5V
>200V	<0.8V	20A	2.0A	> 5	50A	5V

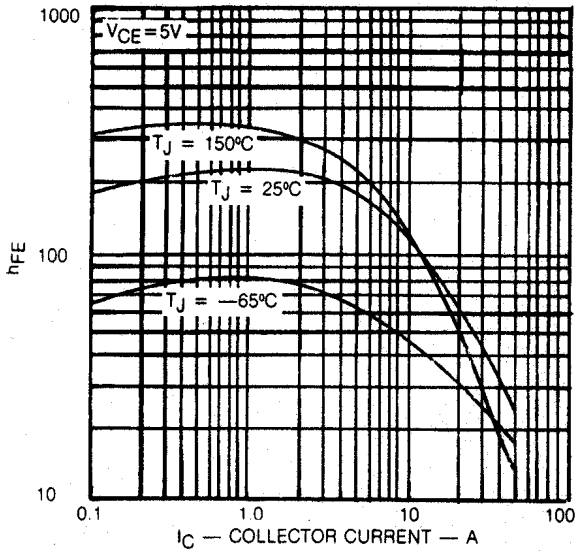
V _{CEO}	V _{CEX}	V _{EBO}	f _T	C _{OBO}	θ _{JC}
> 60V	80V	>8.0V	30MHz	<700pF	<0.8°C/W
> 80V	100V	>8.0V	30MHz	<700pF	<0.8°C/W
>100V	120V	>8.0V	30MHz	<700pF	<0.8°C/W
>120V	140V	>8.0V	30MHz	<700pF	<0.8°C/W
>150V	170V	>8.0V	30MHz	<700pF	<0.8°C/W
>200V	210V	>8.0V	30MHz	<700pF	<0.8°C/W

TYPICAL DEVICE TYPES: 2N6277, 2N6279, SDT79823, 2N6215

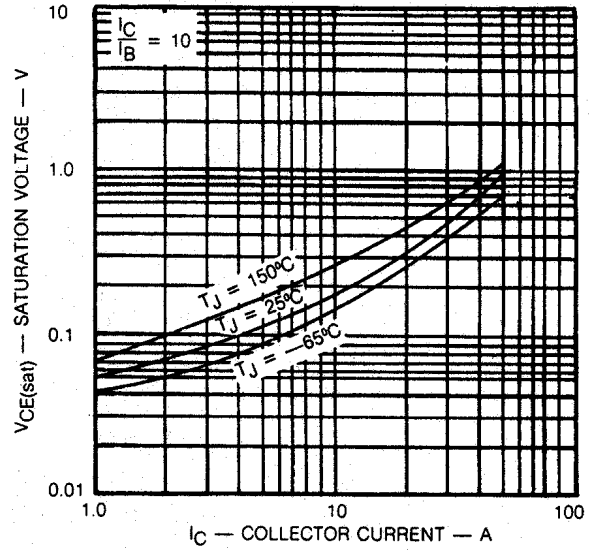
h_{FE} available at I_C = 20A, V_{CE} = 5V, >10

• respective PNP complement is chip number 268.

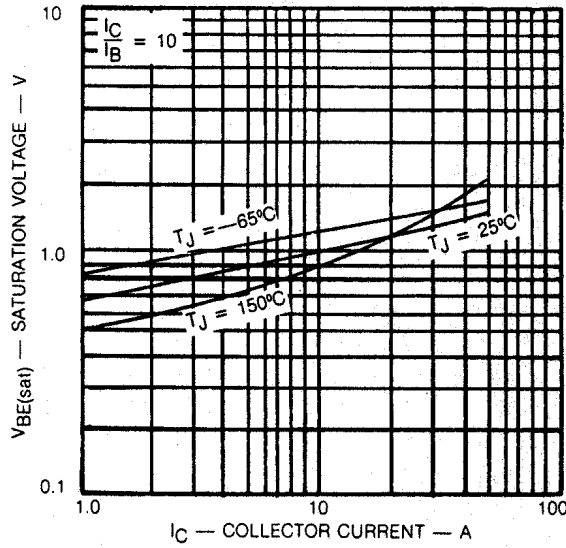
TYPICAL STATIC FORWARD CURRENT TRANSFER RATIO



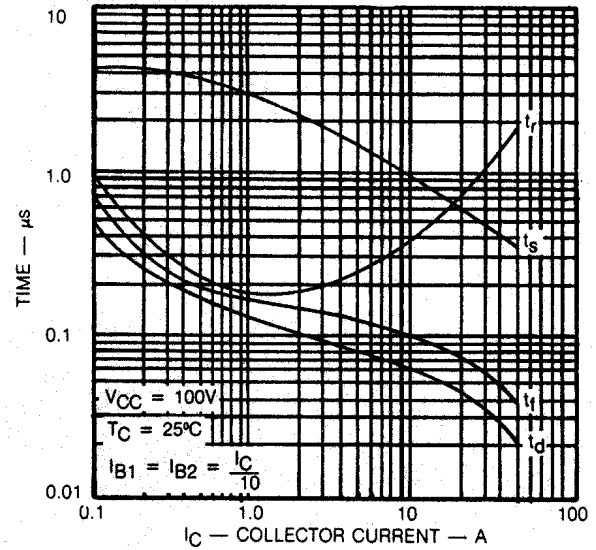
TYPICAL COLLECTOR EMITTER SATURATION VOLTAGE



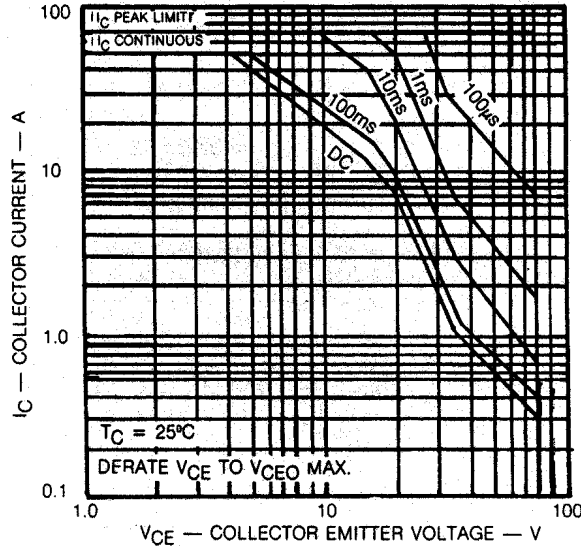
TYPICAL BASE EMITTER SATURATION VOLTAGE



TYPICAL SWITCHING TIME



MAXIMUM OPERATING CONDITIONS



NOTE:
PERFORMANCE CURVES
REPRESENT LOW TO
MIDDLE V_{CE0} VOLTAGE
RANGE OF THIS PRODUCT