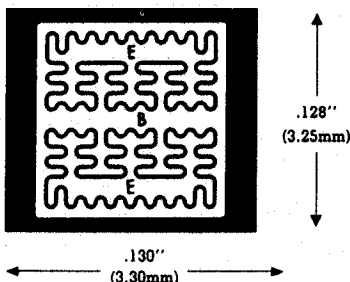


### CHIP NUMBER

# 177



Base: .0095" x .114" (0.24mm x 2.90mm)  
 Emitter: .0095" x .075" (0.24mm x 1.91mm)

### NPN EPITAXIAL PLANAR POWER TRANSISTOR (FORMERLY 77)

#### 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 (6.86mm)

Thickness: .010" (0.25mm)

BeO PEDESTAL

Size: .175" x .250" (4.45mm x 6.35mm)

Thickness: .028" (0.71mm)

#### ASSEMBLY RECOMMENDATIONS

It is advisable that:

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

### TYPICAL ELECTRICAL CHARACTERISTICS AT 25°C

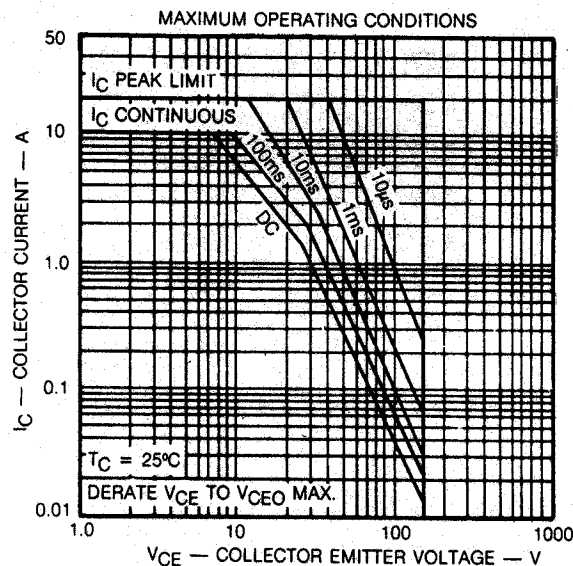
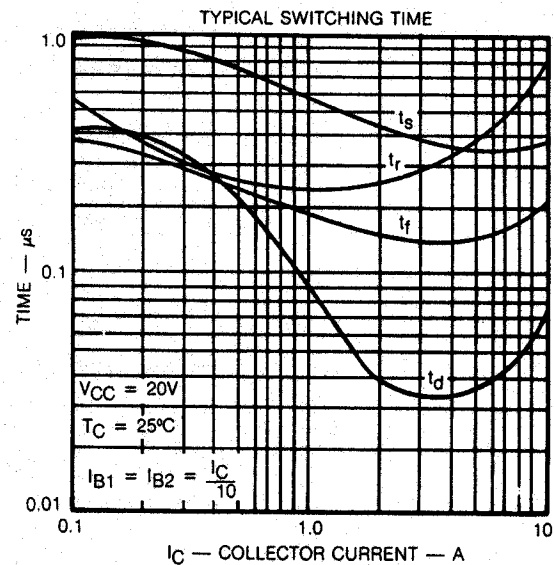
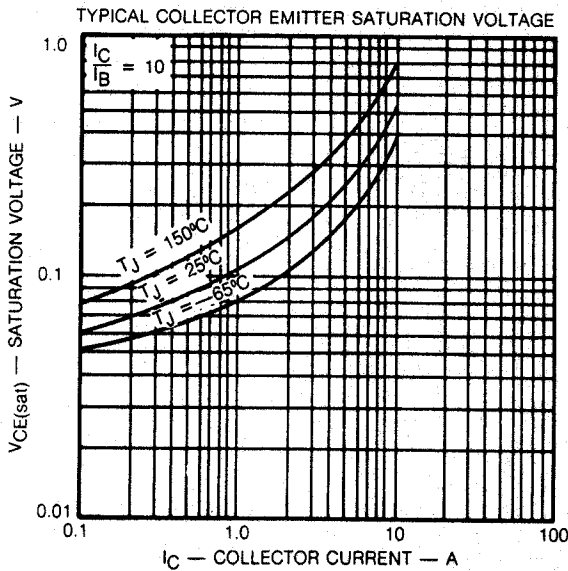
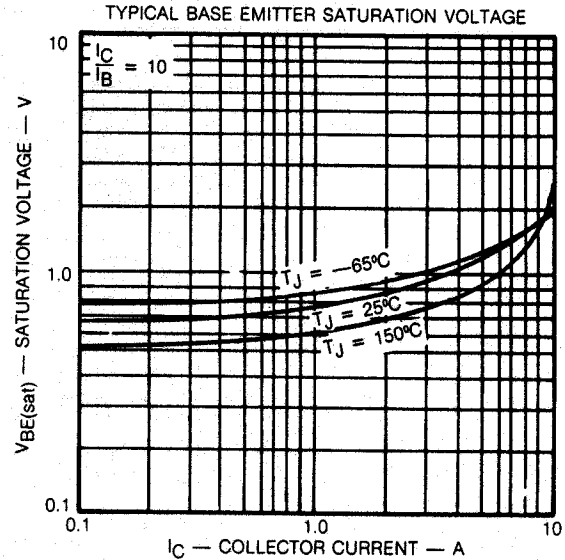
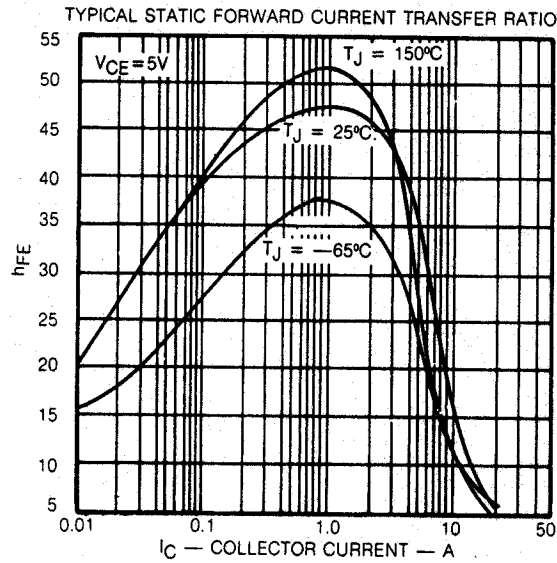
The following typical electrical characteristics apply for a completely finished component employing the chip number 177 in a TO-3 or equivalent case:

$V_{CEO}$	$V_{CE(s)}$ @	$I_C$	$I_B$	$h_{FE}$ @	$I_C$	$V_{CE}$
> 60V	< 0.5V	5A	0.5A	> 15	10A	5V
> 80V	< 0.5V	5A	0.5A	> 15	10A	5V
> 100V	< 0.5V	5A	0.5A	> 15	10A	5V
> 125V	< 0.5V	5A	0.5A	> 15	10A	5V
> 150V	< 0.5V	5A	0.5A	> 15	10A	5V

$V_{CEO}$	$V_{CEX}$	$V_{EBO}$	$f_T$	$C_{OBO}$	$\theta_{JC}$
> 60V	80V	> 20V	12MHz	< 200pF	< 1.25°C/W
> 80V	100V	> 20V	12MHz	< 200pF	< 1.25°C/W
> 100V	125V	> 20V	12MHz	< 200pF	< 1.25°C/W
> 125V	150V	> 20V	12MHz	< 200pF	< 1.25°C/W
> 150V	200V	> 20V	12MHz	< 200pF	< 1.25°C/W

TYPICAL DEVICE TYPES: SDT7731 - SDT7736, 2N6216, 2N6217

$h_{FE}$  ranges available at  $I_C = 5A$ ,  $V_{CE} = 5V$ , 20-80, 30-120



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