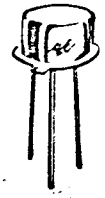
# BF 257 · BF 258 · BF 259

NPN HIGH VOLTAGE VIDEO AMPLIFIER

MICRO ELECTRONICS

THE BF257, BF258, BF259 ARE NPN SILICON PLANAR TRANSISTORS DESIGNED FOR HIGH VOLTAGE VIDEO OUTPUT STAGES IN BLACK-AND-WHITE AND COLOUR TV-RECEIVERS.

CASE TO-39



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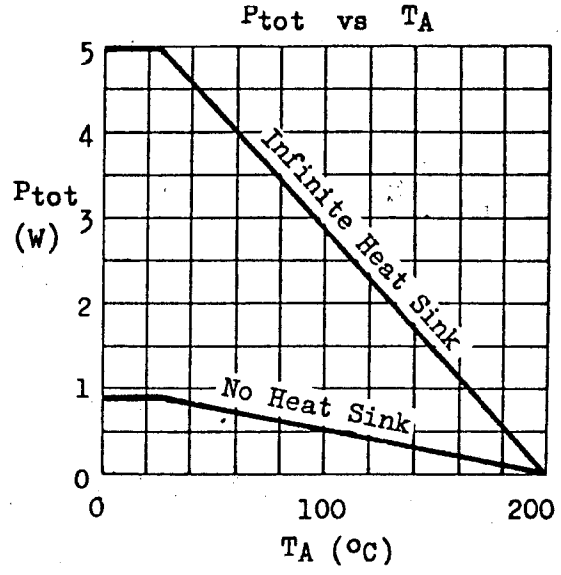
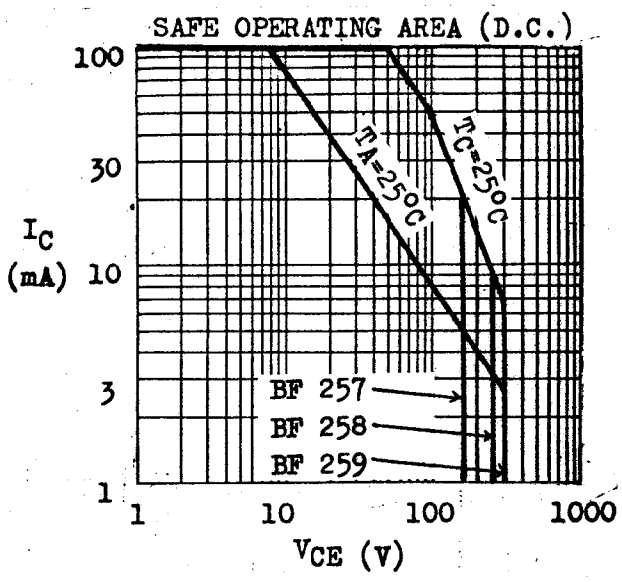
## ABSOLUTE MAXIMUM RATINGS

| | | BF257 | BF258 | BF259 |
|---|---|---|---|---|
| Collector-Base Voltage | $V_{CBO}$ | 160V | 250V | 300V |
| Collector-Emitter Voltage | $V_{CEO}$ | 160V | 250V | 300V |
| Emitter-Base Voltage | $V_{EBO}$ | | 5V | |
| Collector Current | $I_C$ | | 100mA | |
| Total Power Dissipation @ $T_C \leq 25^oC$ | $P_{tot}$ | | 5W | |
| @ $T_A \leq 25^oC$ | | | 800mW | |
| Operating Junction & Storage Temperature | $T_j$, $T_{stg}$ | | -65 to 200°C | |

## THERMAL RESISTANCE

| | | | |
|---|---|---|---|
| Junction to Case | $\theta_{jc}$ | 35°C/W | max. |
| Junction to Ambient | $\theta_{ja}$ | 220°C/W | max. |



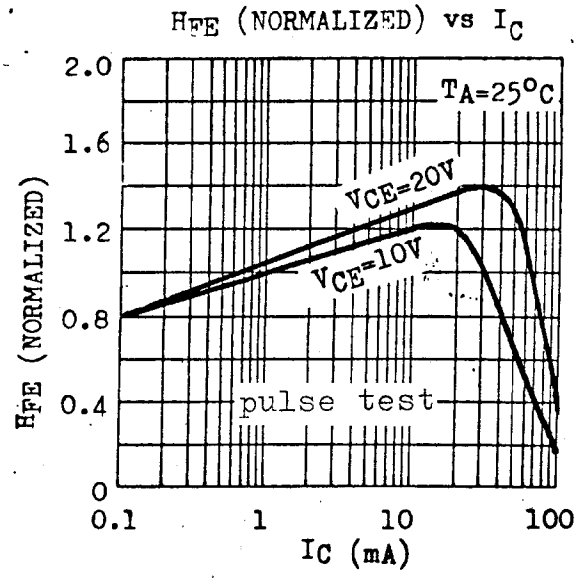


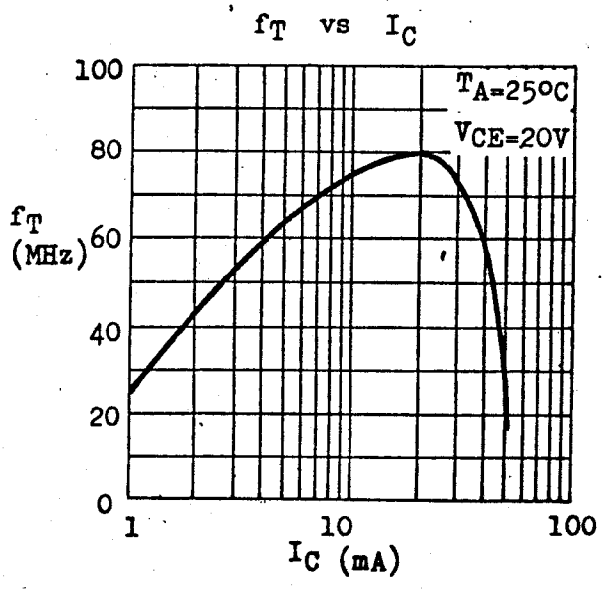
**MICRO ELECTRONICS LTD.**

38 HUNG TO ROAD, KWUN TONG, HONG KONG. TELEX 73510
KWUN TONG P. O. BOX 69477 CABLE ADDRESS "MICROTRON"
TELEPHONE:- 3-430181-6 ~~3-893363~~, ~~3-892423~~
FAX: 3-410321

| PARAMETER | SYMBOL | BF257 MIN | BF257 MAX | BF258 MIN | BF258 MAX | BF259 MIN | BF259 MAX | UNIT | TEST CONDITIONS |
|---|---|---|---|---|---|---|---|---|---|
| ollector-Base Breakdown Voltage | $BV_{CBO}$ | 160 | | 250 | | 300 | | V | $I_C$=0.1mA $I_E$=0 |
| ollector-Emitter Breakdown Voltage | $LV_{CEO}$ * | 160 | | 250 | | 300 | | V | $I_C$=10mA $I_B$=0 |
| mitter-Base Breakdown Voltage | $BV_{EBO}$ | 5 | | 5 | | 5 | | V | $I_E$=0.1mA $I_C$=0 |
| ollector Cutoff Current | $I_{CBO}$ | | 50 | | | | | nA | $V_{CB}$=100V $I_E$=0 |
| | | | | | 50 | | | nA | $V_{CB}$=200V $I_E$=0 |
| | | | | | | | 50 | nA | $V_{CB}$=250V $I_E$=0 |
| mitter Cutoff Current | $I_{EBO}$ | | 50 | | 50 | | 50 | nA | $V_{EB}$=3V $I_C$=0 |
| .C. Current Gain | $H_{FE}$ * | 25 | | 25 | | 25 | | | $I_C$=30mA $V_{CE}$=10V |
| ollector-Emitter Saturation Voltage | $V_{CE(sat)}$* | | 1 | | 1 | | 1 | V | $I_C$=30mA $I_B$=6mA |
| urrent Gain-Bandwidth Product | $f_T$ | 50 | | 50 | | 50 | | MHz | $I_C$=15mA $V_{CE}$=20V |
| ollector-Base Capacitance | Ccb | | 5 | | 5 | | 5 | pF | $V_{CB}$=30V $I_E$=0 f=1MHz |

* Pulse Test : Pulse Width=0.3mS, Duty Cycle=1%

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