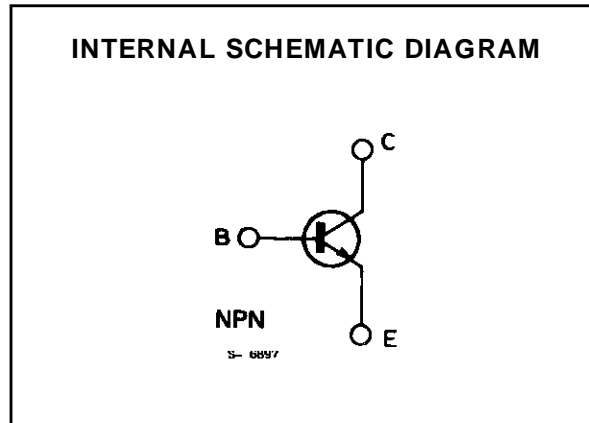
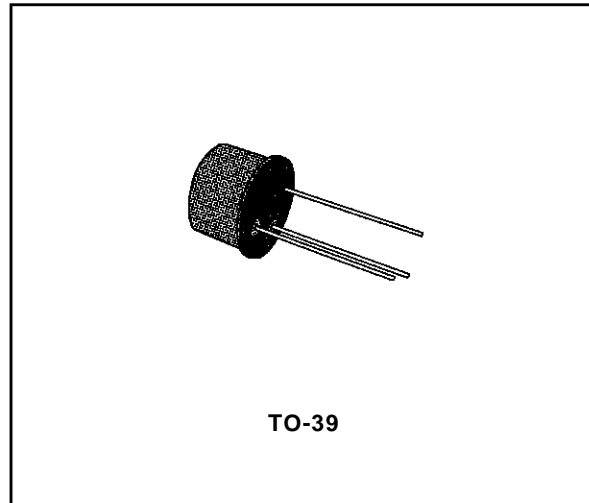


**HIGH VOLTAGE VIDEO AMPLIFIERS**

**DESCRIPTION**

The BF257, BF258 and BF259 are silicon planar epitaxial NPN transistors in Jedec TO-39 metal case. They are particularly designed for video output stages in CTV and MTV sets, class A audio output stages and drivers for horizontal deflection circuits.



**ABSOLUTE MAXIMUM RATINGS**

Symbol	Parameter	Value			Unit
		BF257	BF258	BF259	
$V_{CBO}$	Collector-base Voltage ( $I_E = 0$ )	160	250	300	V
$V_{CEO}$	Collector-emitter Voltage ( $I_B = 0$ )	160	250	300	V
$V_{EBO}$	Emitter-base Voltage ( $I_C = 0$ )	5			V
$I_C$	Collector Current	100			mA
$I_{CM}$	Collector Peak Current	200			mA
$P_{tot}$	Total Power Dissipation at $T_{amb} \leq 50$ °C	5			W
$T_{stg}$	Storage Temperature	- 55 to 200			°C
$T_j$	Junction Temperature	200			°C

# BF257-BF258-BF259

## THERMAL DATA

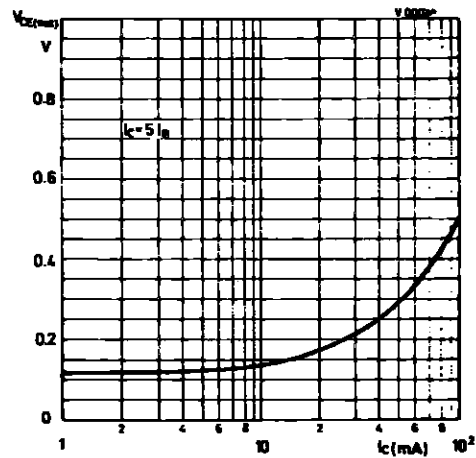
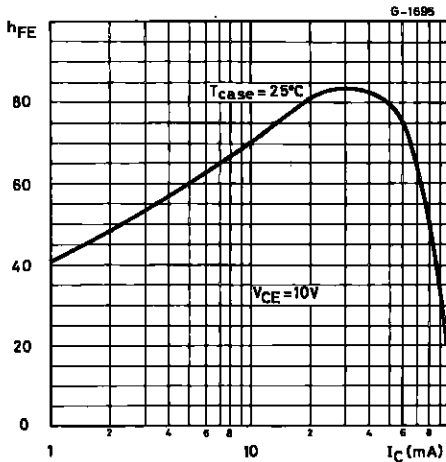
$R_{th\ j-case}$	Thermal Resistance Junction-case	Max	30	$^{\circ}C/W$
$R_{th\ j-amb}$	Thermal Resistance Junction-ambient	Max	175	$^{\circ}C/W$

## ELECTRICAL CHARACTERISTICS ( $T_{amb} = 25^{\circ}C$ unless otherwise specified)

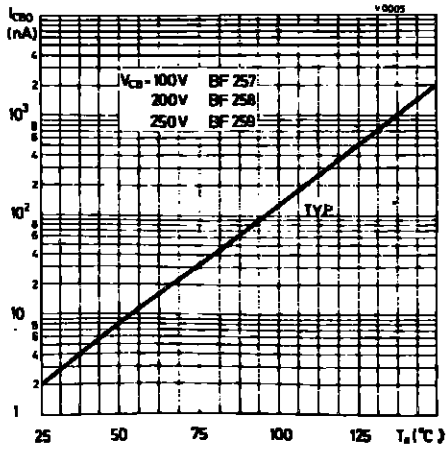
Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
$I_{CBO}$	Collector Cutoff Current ( $I_E = 0$ )	for <b>BF257</b> $V_{CB} = 100\ V$ for <b>BF258</b> $V_{CB} = 200\ V$ for <b>BF259</b> $V_{CB} = 250\ V$			50 50 50	nA nA nA
$V_{(BR)\ CBO}$	Collector-base Breakdown Voltage ( $I_E = 0$ )	$I_C = 100\ \mu A$ for <b>BF257</b> for <b>BF258</b> for <b>BF259</b>	160 250 300			V V V
$V_{(BR)\ CEO}^*$	Collector-emitter Breakdown Voltage ( $I_B = 0$ )	$I_C = 10\ mA$ for <b>BF257</b> for <b>BF258</b> for <b>BF259</b>	160 250 300			V V V
$V_{(BR)\ EBO}$	Emittter-base Breakdown Voltage ( $I_C = 0$ )	$I_E = 100\ \mu A$	5			V
$V_{CE\ (sat)}^*$	Collector-emitter Saturation Voltage	$I_C = 30\ mA$ $I_B = 6\ mA$			1	V
$h_{FE}^*$	DC Current Gain	$I_C = 30\ mA$ $V_{CE} = 10\ V$	25			
$f_T$	Transition Frequency	$I_C = 15\ mA$ $V_{CE} = 10\ V$		90		MHz
$C_{re}$	Reverse Capacitance	$I_C = 0$ $V_{CE} = 30\ V$ $f = 1\ MHz$		3		pF

\* Pulsed : pulse duration = 300  $\mu s$ , duty cycle = 1 %.

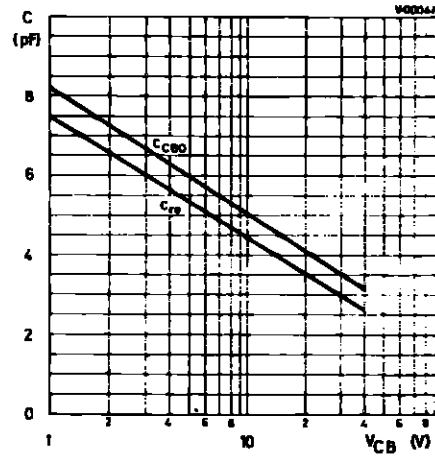
## DC Current Gain.



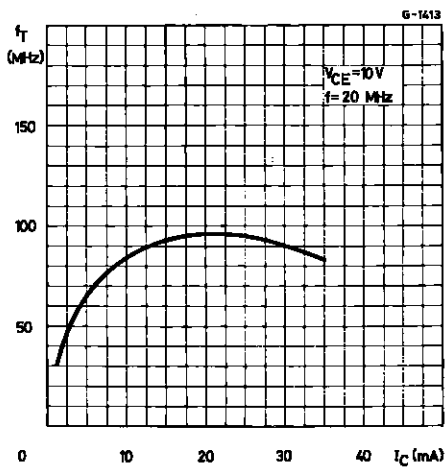
Collector Cutoff Current.



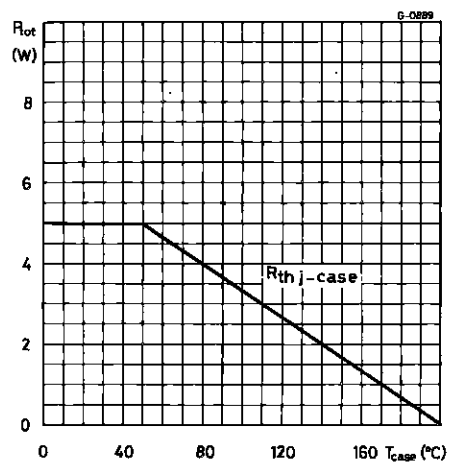
Collector-base Capacitance.



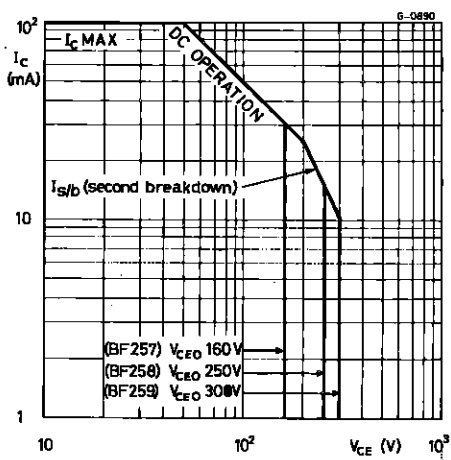
Transition Frequency.



Power Rating Chart.

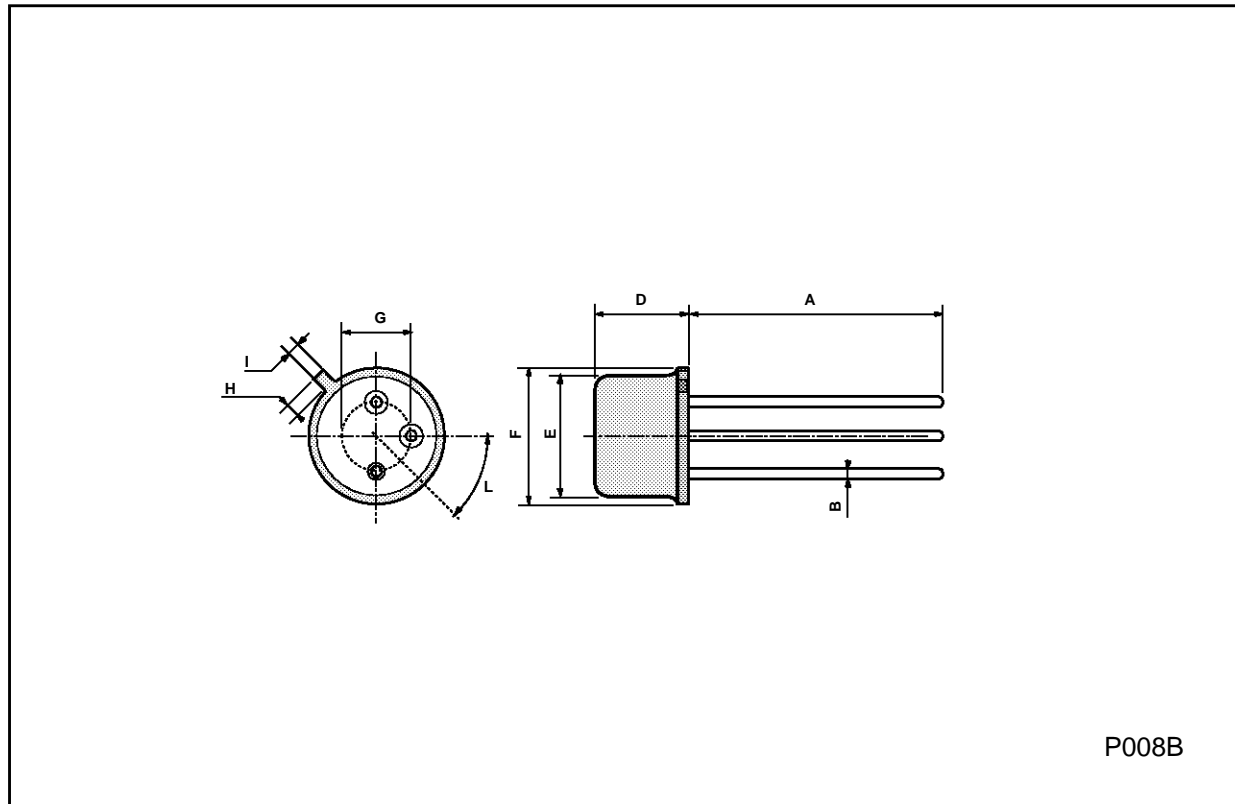


Safe Operating Area.



**TO39 MECHANICAL DATA**

DIM.	mm			inch		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A	12.7			0.500		
B			0.49			0.019
D			6.6			0.260
E			8.5			0.334
F			9.4			0.370
G	5.08			0.200		
H			1.2			0.047
I			0.9			0.035
L	45° (typ.)					



P008B

Information furnished is believed to be accurate and reliable. However, SGS-THOMSON Microelectronics assumes no responsibility for the consequences of use of such information nor for any infringement of patents or other rights of third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of SGS-THOMSON Microelectronics. Specifications mentioned in this publication are subject to change without notice. This publication supersedes and replaces all information previously supplied. SGS-THOMSON Microelectronics products are not authorized for use as critical components in life support devices or systems without express written approval of SGS-THOMSON Microelectronics.

© 1994 SGS-THOMSON Microelectronics - All Rights Reserved

SGS-THOMSON Microelectronics GROUP OF COMPANIES

Australia - Brazil - France - Germany - Hong Kong - Italy - Japan - Korea - Malaysia - Malta - Morocco - The Netherlands -  
Singapore - Spain - Sweden - Switzerland - Taiwan - Thailand - United Kingdom - U.S.A

This datasheet has been download from:

[www.datasheetcatalog.com](http://www.datasheetcatalog.com)

Datasheets for electronics components.