

New Jersey Semi-Conductor Products, Inc.

20 STERN AVE.
SPRINGFIELD, NEW JERSEY 07081
U.S.A.

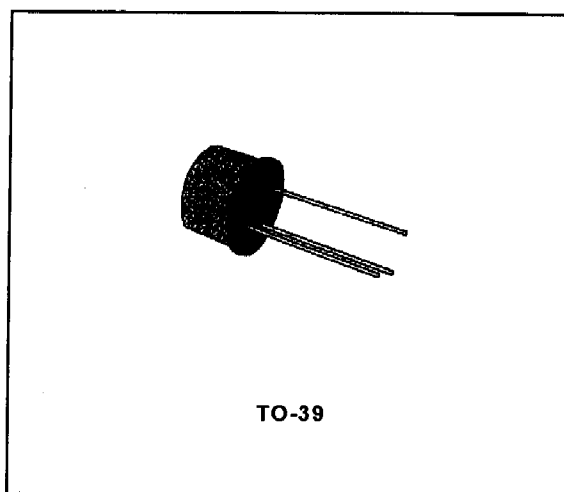
TELEPHONE: (973) 376-2922
(212) 227-6005
FAX: (973) 376-8960

BF257 BF258-BF259

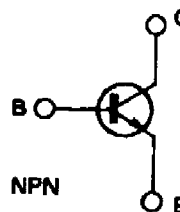
HIGH VOLTAGE VIDEO AMPLIFIERS

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.

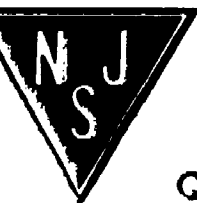


INTERNAL SCHEMATIC DIAGRAM



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 $T_{amb} \leq 50^\circ C$	5			W
T_{stg}	Storage Temperature	- 55 to 200			$^\circ C$
T_j	Junction Temperature	200			$^\circ C$



Quality Semi-Conductors

BF257-BF258-BF259

THERMAL DATA

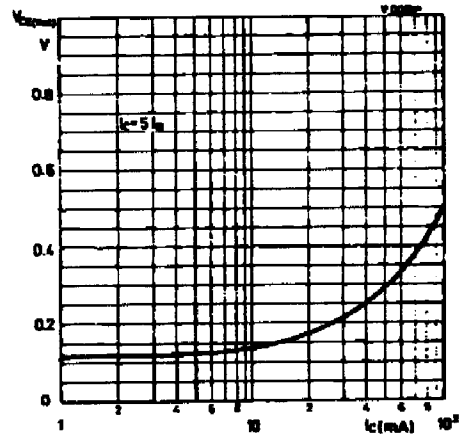
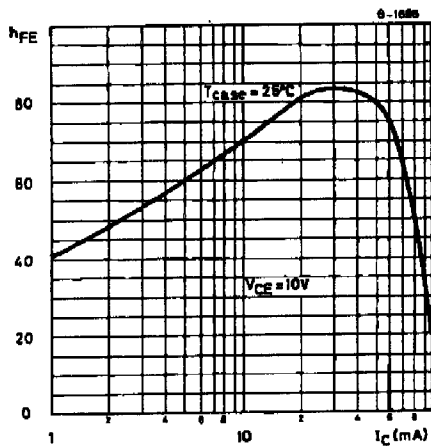
$R_{th\ j-case}$	Thermal Resistance Junction-case	Max	30	$^{\circ}C/W$
$R_{th\ j-amb}$	Thermal Resistance Junction-ambient	Max	175	$^{\circ}C/W$

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 BF257 $V_{CB} = 100\ V$ for BF258 $V_{CB} = 200\ V$ for BF259 $V_{CB} = 250\ V$			50 50 50	nA nA nA
$V_{(BR)\ CBO}$	Collector-base Breakdown Voltage ($I_E = 0$)	$I_C = 100\ \mu A$	for BF257 160 for BF258 250 for BF259 300			V V V
$V_{(BR)\ CEO}^*$	Collector-emitter Breakdown Voltage ($I_B = 0$)	$I_C = 10\ mA$	for BF257 160 for BF258 250 for BF259 300			V V V
$V_{(BR)\ EBO}$	Emitter-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 μs , duty cycle = 1 %.

DC Current Gain.



T039 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.)					

