

T-31-23

MAXIMUM RATINGS

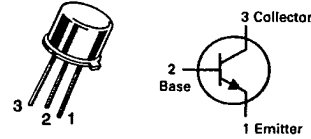
Rating	Symbol	BF 257	BF 258	BF 259	Unit
Collector-Emitter Voltage	V _{CEO}	160	250	300	V _{dc}
Collector-Emitter Voltage	V _{CER}	160	250	300	V _{dc}
Collector-Base Voltage	V _{CBO}	160	250	300	V _{dc}
Emitter-Base Voltage	V _{EBO}	5.0			V _{dc}
Collector Current - Continuous	I _C	0.1			Adc
Total Device Dissipation @ T _A = 25°C Derate above 25°C	P _D	0.8	4.57		Watt mW/°C
Total Device Dissipation @ T _C = 25°C Derate above 25°C	P _D	5.0	28.6		Watt mW/°C
Operating and Storage Junction Temperature Range	T _J , T _{stg}	-65 to +200			°C

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Thermal Resistance, Junction to Case	R _{θJC}	35	°C/W

**BF257-
thru
BF259**

**CASE 79-04, STYLE 1
TO-39 (TO-205AD)**



**HIGH VOLTAGE
TRANSISTORS**
NPN SILICON

3

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted.)

Characteristic	Symbol	Min	Typ	Max	Unit
OFF CHARACTERISTICS					
Collector-Emitter Breakdown Voltage (I _C = 30 mA _{dc} , I _B = 0)	BF257 BF258 BF259	V _{(BR)CEO}	160 250 300	— — —	V _{dc}
Collector-Base Breakdown Voltage (I _C = 100 μA _{dc} , I _E = 0)	BF257 BF258 BF259	V _{(BR)CBO}	160 250 300	— — —	V _{dc}
Emitter-Base Breakdown Voltage (I _E = 100 μA _{dc} , I _C = 0)		V _{(BR)EBO}	5.0	—	V _{dc}
Collector Cutoff Current (V _{CB} = 100 V _{dc} , I _E = 0) (V _{CB} = 200 V _{dc} , I _E = 0) (V _{CB} = 250 V _{dc} , I _E = 0)	BF257 BF258 BF259	I _{CBO}	— — —	1 1 1	nA _{dc}
ON CHARACTERISTICS					
DC Current Gain (I _C = 30 mA _{dc} , V _{CE} = 10 V _{dc})		h _{FE}	25	80	—
Collector-Emitter Saturation Voltage (I _C = 30 mA _{dc} , I _B = 6.0 mA _{dc})		V _{CE(sat)}	—	0.1	1.0
DYNAMIC CHARACTERISTICS					
Current Gain Bandwidth Product (I _C = 30 mA _{dc} , V _{CE} = 10 V _{dc} , f = 100 MHz)		f _T	—	110	—
Reverse Transfer Capacitance (V _{CB} = 30 V _{dc} , I _E = 0, f = 500 kHz)		C _{re}	—	3.5	—
Collector-Base Capacitance (V _{CB} = 10 V _{dc} , I _E = 0, f = 500 kHz)		C _{cb}	—	5.5	—