

BF491, BF492, BF493 are PNP silicon planar transistors designed for high voltage video amplifiers in television receivers requiring high breakdown voltage and low capacitance.



EBC

ABSOLUTE MAXIMUM RATINGS

Collector-Emitter Voltage

V_{CEO}

	BF491	BF492	BF493
V_{CEO}	200V	250V	300V
V_{CBO}	200V	250V	300V
V_{EBO}	6V	8V	8V
I_C		500mA	
P_D		625mW	
		1.2mW/°C	
		1.5W	
		12mW/°C	
T_j, T_{stg}	-55 to 150°C		

Collector-Base Voltage

V_{CBO}

Emitter-Base Voltage

V_{EBO}

Collector Current

I_C

Total Device Dissipation @ $T_A=25^\circ C$

P_D

Derate Above 25°C

Total Device Dissipation @ $T_C=25^\circ C$

P_D

Derate Above 25°C

Operating & Storage Junction Temperature Range

T_j, T_{stg}

ELECTRICAL CHARACTERISTICS ($T_A=25^\circ C$ unless otherwise noted)

PARAMETER	SYMBOL	BF491		BF492		BF493		UNIT	TEST CONDITION
		MIN	MAX	MIN	MAX	MIN	MAX		
Collector-Base Breakdown Voltage	V_{CBO}	200		250		300		V	$I_C=0.1mA$ $I_E=0$
Collector-Emitter Breakdown Voltage	V_{CEO}^*	200		250		300		V	$I_C=1mA$ $I_B=0$
Emitter-Base Breakdown Voltage	V_{EBO}	6		8		8		V	$I_E=0.1mA$ $I_C=0$
Collector Cutoff Current	I_{CBO}	0.1						μA	$V_{CB}=160V$ $I_E=0$
				0.1		0.1		μA	$V_{CB}=200V$ $I_E=0$
Emitter Cutoff Current	I_{EBO}	0.1						μA	$V_{EB}=4V$ $I_C=0$
				0.1		0.1		μA	$V_{EB}=6V$ $I_C=0$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	2		2		2		V	$I_C=20mA$ $I_B=2mA$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	2		2		2		V	$I_C=20mA$ $I_B=2mA$
D.C. Current Gain	H_{FE}	25		25		25			$I_C=1mA$ $V_{CE}=10V$
		40		40		40			$I_C=10mA$ $V_{CE}=10V$
Current Gain-Bandwidth Product	f_T	50		50		50		MHz	$I_C=10mA$ $V_{CE}=20V$
Feedback Capacitance	C_{re}	2		2		2		pF	$V_{CB}=100V$ $I_E=0$ $f=1MHz$

* Pulse Test : Pulse Width $\leq 300\mu S$, Duty Cycle $\leq 2\%$.



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