

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

		BF491	BF492	BF493
Collector-Emitter Voltage	V_{CEO}	200V	250V	300V
Collector-Base Voltage	V_{CBO}	200V	250V	300V
Emitter-Base Voltage	V_{EBO}	6V	8V	8V
Collector Current	I_C		500mA	
Total Device Dissipation @ $T_A=25^\circ C$	P_D		625mW	
Derate Above $25^\circ C$			1.2mW/ $^\circ C$	
Total Device Dissipation @ $T_C=25^\circ C$	P_D		1.5W	
Derate Above $25^\circ C$			12mW/ $^\circ C$	
Operating & Storage Junction Temperature Range	T_j, T_{stg}	-55 to $150^\circ C$		

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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