

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 200V BF492 250V BF493 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						$\mu A$	$V_{CB}=160V$ $I_E=0$
				0.1		0.1		$\mu A$	$V_{CB}=200V$ $I_E=0$
Emitter Cutoff Current	$I_{EBO}$	0.1						$\mu A$	$V_{EB}=4V$ $I_C=0$
				0.1		0.1		$\mu A$	$V_{EB}=6V$ $I_C=0$
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  $\leq 2\%$ .



MICRO ELECTRONICS LTD. 美科有限公司

38 Hung To Road, Kwun Tong, Kowloon, Hong Kong. Cable: Microtron, Hong Kong. Telex: 43510 Micro HX.  
P.O. Box 49477, Kwun Tong. Tel: 3-430181-6 3-893363, 3-892423, 3-898224 FAX: 3-410321

