SOT89 NPN SILICON PLANAR HIGH VOLTAGE TRANSISTORS

BF620 BF622

ISSUE 3 – JANUARY 1996 ✪

FEATURES

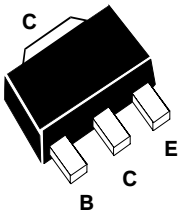
* High breakdown and low saturation voltages

APPLICATIONS

* Suitable for video output stages in TV sets
* Switching power supplies

COMPLEMENTARY TYPE: BF620 – BF621
BF622 – BF623

PARTMARKING DETAIL – BF620 – DC
BF622 – DA



SOT89

ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	BF620	BF622	UNIT
Collector-Base Voltage	V_{CBO}	300	250	V
Collector-Emitter Voltage	V_{CEO}	300	250	V
Emitter-Base Voltage	V_{EBO}	5		V
Peak Pulse Current	I_{CM}	100		mA
Continuous Collector Current	I_C	50		mA
Power Dissipation at T_{amb}=25°C	P_{tot}	1		W
Operating and Storage Temperature Range	T_j:T_{stg}	-65 to +150		°C

ELECTRICAL CHARACTERISTICS (at T_{amb} = 25°C unless otherwise stated).

PARAMETER		SYMBOL	MIN.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	BF620 BF622	$V_{(BR)CBO}$	300 250		V	I_C=10μA, I_E=0 I_C=10μA, I_E=0
Collector-Emitter Breakdown Voltage	BF620 BF622	$V_{(BR)CEO}$	300 250		V	I_C=1mA, I_B=0* I_C=1mA, I_B=0*
Emitter-Base Breakdown Voltage		$V_{(BR)EBO}$	5		V	I_E=100μA, I_C=0
Collector Cut-Off Current		I_{CBO}		10 20	nA μA	V_{CB}=200V, I_E=0 V_{CB}=200V, I_E=0 †
Colector Cut-Off Current		I_{CER}		50 10	nA μA	V_{CE}=200V, R_{BE}=2.7KΩ V_{CE}=200V, R_{BE}=2.7KΩ †
Emitter Cut-Off Current		I_{EBO}		10	μA	V_{EB}=5V, I_C=0
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$		0.6	V	I_C=30mA, I_B=5mA*
Base-Emitter Saturation Voltage		$V_{BE(sat)}$		0.9	V	I_C=20mA, I_B=2mA*
Static Forward Current Transfer Ratio		h_{FE}	50			I_C=25mA, V_{CE}=20V*
Transition Frequency		f_T	100 Typical		MHz	I_C=10mA, V_{CE}=10V f=100MHz
Collector-Base Capacitance		C_{ob}	0.8 Typical		pF	V_{CB}=30V, f=1MHz

†T_{amb}=150°C
*Measured under pulsed conditions. Pulse width=300μs. Duty cycle ≤2%
For typical characteristics graphs see FMMTA42 datasheet.