

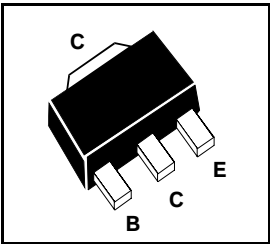
SOT89 NPN SILICON PLANAR
HIGH VOLTAGE TRANSISTOR

ISSUE 3 - JANUARY 1996

BFN18

COMPLEMENTARY TYPE - BFN19

PARTMARKING DETAIL - DE



ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	300	V
Collector-Emitter Voltage	V_{CEO}	300	V
Emitter-Base Voltage	V_{EBO}	5	V
Peak pulse Current	I_{CM}	500	mA
Continuous Collector Current	I_C	200	mA
Base Current	I_B	100	mA
Power Dissipation at $T_{amb}=25^{\circ}C$	P_{tot}	1	W
Operating and Storage Temperature Range	T_j, T_{stg}	-65 to +150	$^{\circ}C$

ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^{\circ}C$).

PARAMETER	SYMBOL	MIN.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	300		V	$I_C=100\mu A$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	300		V	$I_C=1mA^*$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	5		V	$I_E=100\mu A$
Collector Cut-Off Current	I_{CBO}		100 20	nA μA	$V_{CB}=250V$ $V_{CB}=250V, T_{amb}=150^{\circ}C$
Emitter Cut-Off Current	I_{EBO}		100	nA	$V_{EB}=3V$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		0.5	V	$I_C=20mA, I_B=2mA$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		0.9	V	$I_C=20mA, I_B=2mA$
Static Forward Current Transfer Ratio	h_{FE}	25 40 30			$I_C=1mA, V_{CE}=10V^*$ $I_C=10mA, V_{CE}=10V^*$ $I_C=30mA, V_{CE}=10V^*$
Transition Frequency	f_T	Typ. 70		MHz	$I_C=20mA, V_{CE}=10V$ $f=20MHz$
Output Capacitance	C_{obo}	Typ. 1.5		pF	$V_{CB}=30V, f=1MHz$

* Measured under pulsed conditions. Pulse width=300 μs . Duty cycle $\leq 2\%$
For typical characteristics graphs see FMMTA42 datasheet.