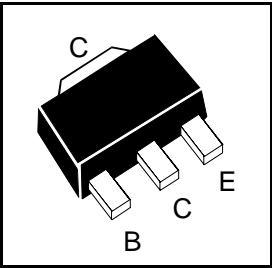


SOT89 NPN SILICON PLANAR HIGH VOLTAGE TRANSISTOR

ISSUE 3 - OCTOBER 1995 

BFN16



COMPLEMENTARY TYPE - BFN17
PARTMARKING DETAILS - DD

ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	250	V
Collector-Emitter Voltage	V_{CEO}	250	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 $T_{amb}=25^\circ\text{C}$	P_{tot}	1	W
Operating and Storage Temperature Range	$T_j; T_{stg}$	-65 to +150	$^\circ\text{C}$

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

PARAMETER	SYMBOL	MIN.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	250		V	$I_C=100\mu\text{A}$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	250		V	$I_C=1\text{mA}$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	5		V	$I_E=100\mu\text{A}$
Collector Cut-Off Current	I_{CBO}		100 20	nA μA	$V_{CB}=250\text{V}$ $V_{CB}=250\text{V}, T_{amb}=150^\circ\text{C}$
Emitter Cut-Off Current	I_{EBO}		100	nA	$V_{EB}=3\text{V}$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		0.4	V	$I_C=20\text{mA}, I_B=2\text{mA}$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		0.9	V	$I_C=20\text{mA}, I_B=2\text{mA}$
Static Forward Current Transfer Ratio	h_{FE}	25 40 40			$I_C=1\text{mA}, V_{CE}=10\text{V}^*$ $I_C=10\text{mA}, V_{CE}=10\text{V}$ $I_C=30\text{mA}, V_{CE}=10\text{V}$
Transition Frequency	f_T	Typ.70		MHz	$I_C=20\text{mA}, V_{CE}=10\text{V}^*$ $f=20\text{MHz}$
Output Capacitance	C_{obo}	Typ.1.5		pF	$V_{CB}=30\text{V}, f=1\text{MHz}$

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