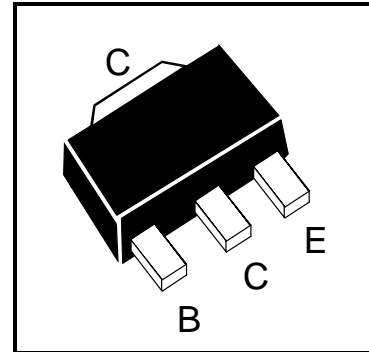


# SOT89 NPN SILICON PLANAR HIGH VOLTAGE TRANSISTOR

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 $T_{amb}=25^{\circ}C$	$P_{tot}$	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	$V_{(BR)CBO}$	250		V	$I_C=100\mu A$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	250		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 $\mu A$	$V_{CB}=250V$ $V_{CB}=250V, T_{amb}=150^{\circ}C$
Emitter Cut-Off Current	$I_{EBO}$		100	nA	$V_{EB}=3V$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		0.4	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 40			$I_C=1mA, V_{CE}=10V^*$ $I_C=10mA, V_{CE}=10V$ $I_C=30mA, V_{CE}=10V$
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 $\mu s$ . Duty cycle  $\leq 2\%$   
For typical characteristics graphs see FMMTA42 datasheet