

SOT223 PNP SILICON PLANAR HIGH VOLTAGE TRANSISTOR

BFN39

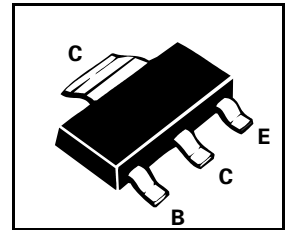
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FEATURES:

- * High $V_{CE0}=300V$ and low $V_{CE(sat)}$

APPLICATIONS:

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

COMPLEMENTARY TYPE:- BFN38

PARTMARKING DETAIL:- BFN39

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
Continuous Collector Current	I_C	-500	mA
Power Dissipation at $T_{amb}=25^{\circ}C$	P_{tot}	-2	W
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +150	$^{\circ}C$

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

PARAMETER	SYMBOL	MIN.	TYP.	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	$V_{CB} = -250V$ $V_{CB} = -250V$ †
Emitter Cut-Off Current	I_{EBO}			-100	nA	$V_{EB} = -4V$
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		100		MHz	$I_C = -20mA, V_{CE} = -10V$ $f = 100MHz$
Output Capacitance	C_{obo}		2.5		pF	$V_{CB} = -30V, f = 1MHz$

 † $T_{amb} = 150^{\circ}C$

 *Measured under pulsed conditions. Pulse width=300 μs . Duty cycle $\leq 2\%$
 For typical characteristics graphs see FMMTA92 datasheet.