## **SOT89 PNP SILICON PLANAR HIGH VOLTAGE TRANSISTOR** Issue 4 - November 2006 0

PARTMARKING DETAIL - P96

## ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V <sub>CBO</sub>	-220	V
Collector-Emitter Voltage	V <sub>CEO</sub>	-200	V
Emitter-Base Voltage	V <sub>EBO</sub>	-5	V
Peak Pulse Current	I <sub>CM</sub>	-1	А
Continuous Collector Current	I <sub>C</sub>	-0.3	А
Base Current	I <sub>B</sub>	-200	mA
Power Dissipation at T <sub>amb</sub> =25°C	P <sub>tot</sub>	1	W
Operating and Storage Temperature Range	T <sub>j</sub> :T <sub>stg</sub>	-65 to +150	°C

## ELECTRICAL CHARACTERISTICS (at Tomb = 25°C).

PARAMETER	SYMBOL	MIN.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	V <sub>(BR)CBO</sub>	-220		V	I <sub>C</sub> =-100μA
Collector-Emitter Breakdown Voltage	V <sub>(BR)CEO</sub>	-200		V	I <sub>C</sub> =-10mA*
Emitter-Base Breakdown Voltage	V <sub>(BR)EBO</sub>	-5		V	I <sub>E</sub> =-100μA
Collector Cut-Off Current	I <sub>CBO</sub>		-100	nA	V <sub>CB</sub> =-200V
Emitter Cut-Off Current	I <sub>EBO</sub>		-100	nA	V <sub>EB</sub> =-4V
Collector-Emitter Cut-Off Current	I <sub>CES</sub>		-100	nA	V <sub>CES</sub> =-200V
Saturation Voltages	V <sub>CE(sat)</sub>		-0.2 -0.35	V V	I <sub>C</sub> =-100mA,I <sub>B</sub> =-10mA I <sub>C</sub> =-250mA I <sub>B</sub> =-25mA*
	V <sub>BE(sat)</sub>		-1.0	V	I <sub>C</sub> =-250mA,I <sub>B</sub> =-25mA*
Base-Emitter Turn-on Voltage	V <sub>BE(on)</sub>		-0.9	V	I <sub>C</sub> =-250mA,V <sub>CE</sub> =-10V*
Static Forward Current Transfer Ratio	h <sub>FE</sub>	100 100 85 35	300		$\begin{array}{l} I_{C} = -1mA, \ V_{CE} = -10V \\ I_{C} = -100mA, \ V_{CE} = -10V* \\ I_{C} = -250mA, \ V_{CE} = -10V* \\ I_{C} = -400mA, \ V_{CE} = -10V, \end{array}$
Transition Frequency	f <sub>T</sub>	150		MHz	I <sub>C</sub> =-50mA, V <sub>CE</sub> =-10V f=100MHz
Output Capacitance	C <sub>obo</sub>		10	pF	V <sub>CB</sub> =-10V, f=1MHz

\*Measured under pulsed conditions. Pulse width= $300\mu$ s. Duty cycle  $\leq 2\%$ For typical Characteristics graphs see FMMT596 datasheet.



