SOT323 PNP SILICON PLANAR HIGH PERFORMANCE TRANSISTOR

ZUMT591

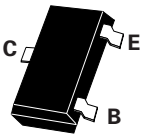
DRAFT SPECIFICATION ISSUE A – OCTOBER 94

FEATURES

* Extremely low saturation voltage
* 500mW power dissipation
* 1 Amp continuous collector current (I_C)

APPLICATIONS

* Ideally suited for space / weight critical applications



SOT323

ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	-80	V
Collector-Emitter Voltage	V_{CEO}	-60	V
Emitter-Base Voltage	V_{EBO}	-5	V
Peak Pulse Current	I_{CM}	-2	A
Continuous Collector Current	I_C	-1	A
Base Current	I_B	-200	mA
Power Dissipation at T_{amb}=25°C	P_{tot}	500	mW
Operating and Storage Temperature Range	T_j:T_{stg}	-55 to +150	°C

ELECTRICAL CHARACTERISTICS (at T_{amb} = 25°C).

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-80			V	I_C=-100μA, I_E=-0
Collector-Emitter Breakdown Voltage	$V_{CEO(sus)}$	-60			V	I_C=-10mA*, I_B=-0
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5			V	I_E=-100μA, I_C=-0
Collector Cut-Off Current	I_{CBO}			-100	nA	V_{CB}=-60V
Collector Cut-Off Current	I_{CES}			-100	nA	VCE=-60V
Emitter Cut-Off Current	I_{EBO}			-100	nA	V_{EB}=-4V, I_C=-0
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			-0.3 -0.6	V V	I_C=-500mA, I_B=-50mA* I_C=-1A, I_B=-100mA*
Base-Emitter Saturation Voltage	$V_{BE(sat)}$			-1.2	V	I_C=-1A, I_B=-100mA*
Base-Emitter Turn On Voltage	$V_{BE(on)}$			-1.0	V	IC=-1A, V_{CE}=-5V*

* Measured under pulsed conditions. Pulse width=300μs. Duty cycle®2%

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ELECTRICAL CHARACTERISTICS (at T_{amb} = 25°C).

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Static Forward Current Transfer Ratio	h_{FE}	100 100 80 15		300		I_C=-1mA, V_{CE}=-5V* I_C=-500mA, V_{CE}=-5V* I_C=-1A, V_{CE}=-5V* I_C=-2A, V_{CE}=-5V*
Transition Frequency	f_T	150			MHz	I_C=-50mA, V_{CE}=-10V* f=100MHz
Ouput Capacitance	C_{obo}			10	pF	V_{CB}=-10V, f=1MHz

* Measured under pulsed conditions. Pulse width=300μs. Duty cycle®2%

NOTE

This data is derived from development material and does not necessarily mean that the device will go into production

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