SOT323 PNP SILICON PLANAR HIGH PERFORMANCE TRANSISTOR

ZUMT591

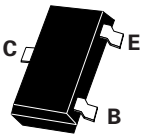
DRAFT SPECIFICATION ISSUE A – OCTOBER 94

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%

ZUMT591

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

© Zetex Semiconductors plc 2005

Europe	Americas	Asia Pacific	Corporate Headquarters
Zetex GmbH Streitfeldstraße 19 D-81673 München Germany	Zetex Inc 700 Veterans Memorial Hwy Hauppauge, NY 11788 USA	Zetex (Asia) Ltd 3701-04 Metroplaza Tower 1 Hing Fong Road, Kwai Fong Hong Kong	Zetex Semiconductors plc Zetex Technology Park Chadderton, Oldham, OL9 9LL United Kingdom
Telefon: (49) 89 45 49 49 0 Fax: (49) 89 45 49 49 49 europe.sales@zetex.com	Telephone: (1) 631 360 2222 Fax: (1) 631 360 8222 usa.sales@zetex.com	Telephone: (852) 26100 611 Fax: (852) 24250 494 asia.sales@zetex.com	Telephone (44) 161 622 4444 Fax: (44) 161 622 4446 hq@zetex.com

These offices are supported by agents and distributors in major countries world-wide.

This publication is issued to provide outline information only which (unless agreed by the Company in writing) may not be used, applied or reproduced for any purpose or form part of any order or contract or be regarded as a representation relating to the products or services concerned. The Company reserves the right to alter without notice the specification, design, price or conditions of supply of any product or service.

For the latest product information, log on to www.zetex.com

ZETEX SEMICONDUCTORS