Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

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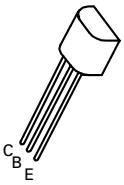
PNP SILICON PLANAR MEDIUM POWER HIGH GAIN TRANSISTOR

ZTX1151A

ISSUE 1 - JANUARY 1997

FEATURES

* V_{CEO}= -40V
* 3 Amp Continuous Current
* 5 Amp Pulse Current
* Low Saturation voltage
* High Gain



E-Line
TO92 Compatible

ABSOLUTE MAXIMUM RATINGS.

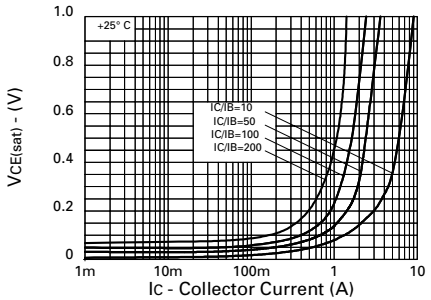
PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	-45	V
Collector-Emitter Voltage	V_{CEO}	-40	V
Emitter-Base Voltage	V_{EBO}	-5	V
Peak Pulse Current	I_{CM}	-5	A
Continuous Collector Current	I_C	-3	A
Base Current	I_B	-500	mA
Power Dissipation at T_{amb}=25°C	P_{tot}	1	W
Operating and Storage Temperature Range	T_j:T_{stg}	-55 to +200	°C

ZTX1151A

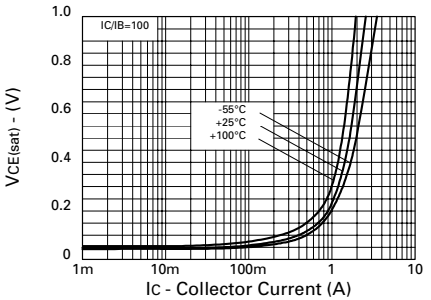
ELECTRICAL CHARACTERISTICS (at T_{amb} = 25°C unless otherwise stated).

PARAMETER	SYMBOL	VALUE			UNIT	CONDITIONS.
		MIN.	TYP.	MAX.		
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-45	-95		V	I_C=-100μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CES}$	-40	-90		V	I_C=-100μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-40	-85		V	I_C=-10mA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEV}$	-40	-90		V	I_C=-100μA, V_{EB}=+1V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5	-8.5		V	I_E=-100μA
Collector Cut-Off Current	I_{CBO}		-0.3	-100	nA	V_{CB}=-36V
Emitter Cut-Off Current	I_{EBO}		-0.3	-100	nA	V_{EB}=-4V
Collector Emitter Cut-Off Current	I_{CES}		-0.3	-100	nA	V_{CE}=-32V
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		-60 -115 -135 -160 -180	-90 -170 -210 -230 -240	mV mV mV mV mV	I_C=-0.1A, I_B=-1.0mA* I_C=-0.5A, I_B=-5mA* I_C=-1A, I_B=-20mA* I_C=-1.8A, I_B=-70mA* I_C=-3A, I_B=-250mA*
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		-950	-1050	mV	I_C=-3A, I_B=-250mA*
Base-Emitter Turn-On Voltage	$V_{BE(on)}$		-815	-950	mV	I_C=-3A, V_{CE}=-2V*
Static Forward Current Transfer Ratio	h_{FE}	270 250 180 100	450 400 300 190 40	800		I_C=-10mA, V_{CE}=-2V* I_C=-0.5A, V_{CE}=-2V* I_C=-2A, V_{CE}=-2V* I_C=-3A, V_{CE}=-2V* I_C=-5A, V_{CE}=-2V*
Transition Frequency	f_T		145		MHz	I_C=-50mA, V_{CE}=-10V f=50MHz
Output Capacitance	C_{cb}		40		pF	V_{CB}=-10V, f=1MHz
Switching Times	t_{on}		170		ns	I_C=-2A, I_B=-20mA, V_{CC}=-30V

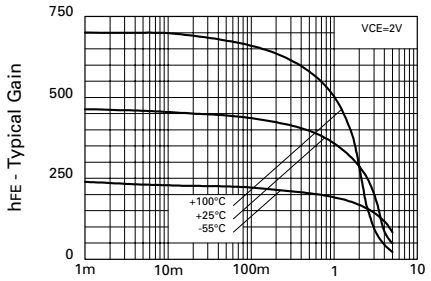
TYPICAL CHARACTERISTICS



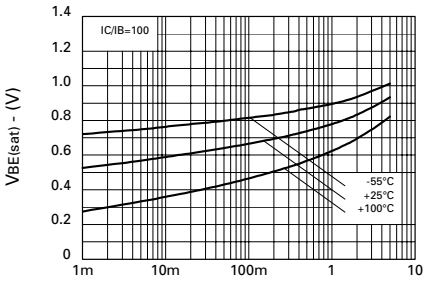
VCE(sat) v IC



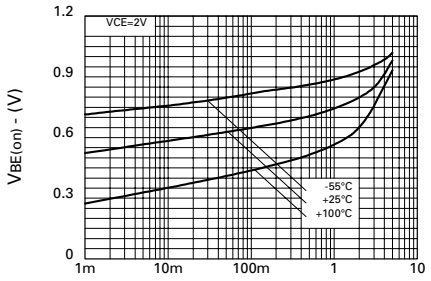
VCE(sat) v IC



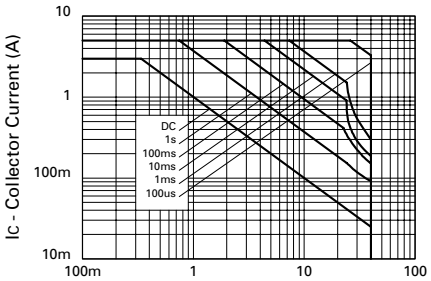
hFE v IC



VBE(sat) v IC

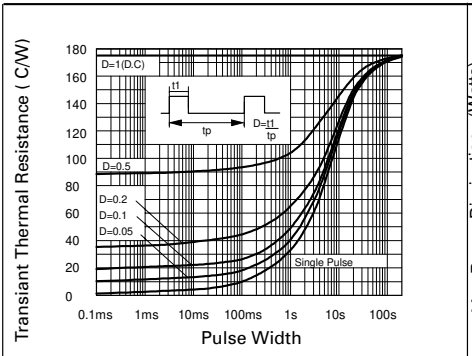


VBE(on) v IC

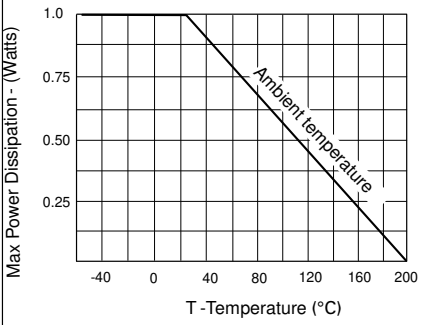


Safe Operating Area

ZTX1151A



Transient Thermal Resistance



Derating curve

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*ZETEX  ZTX1151 Spice model   Last revision  12/12/96
*
.MODEL      ZTX1151 PNP IS =1.7e-12 NF =1.004 ISE=1.02e-13 NE =1.55  BF =562
+           VAF=26.01 IKF=3.5 NR =.97 ISC= 1.5e-13  NC =1.3
+           BR =38 VAR=2.41  IKR=0.3  RE =25.37e-3 RB =250e-3
+           RC =25e-3 CJE=440e-12 CJC=160e-12 VJC=1.058
+           MJC= 0.5678 TF =0.8e-9  TR =55.5e-9
*
*
```


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