

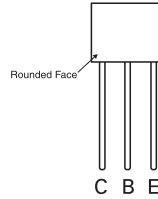
## E-LINE PNP SILICON PLANAR HIGH VOLTAGE TRANSISTOR

### FEATURES

- Excellent  $h_{FE}$  characteristics up to  $I_C=50\text{mA}$
- Low Saturation voltages

### PARTMARKING

ZTX  
560



PIN-OUT



E-LINE

### ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	VALUE	UNIT
Collector-base voltage	$V_{CBO}$	-500	V
Collector-emitter voltage	$V_{CEO}$	-500	V
Emitter-base voltage	$V_{EBO}$	-5	V
Peak pulse current	$I_{CM}$	-500	mA
Continuous collector current	$I_C$	-150	mA
Power dissipation	$P_{tot}$	1	W
Operating and storage temperature range	$T_j; T_{stg}$	-55 to +150	°C

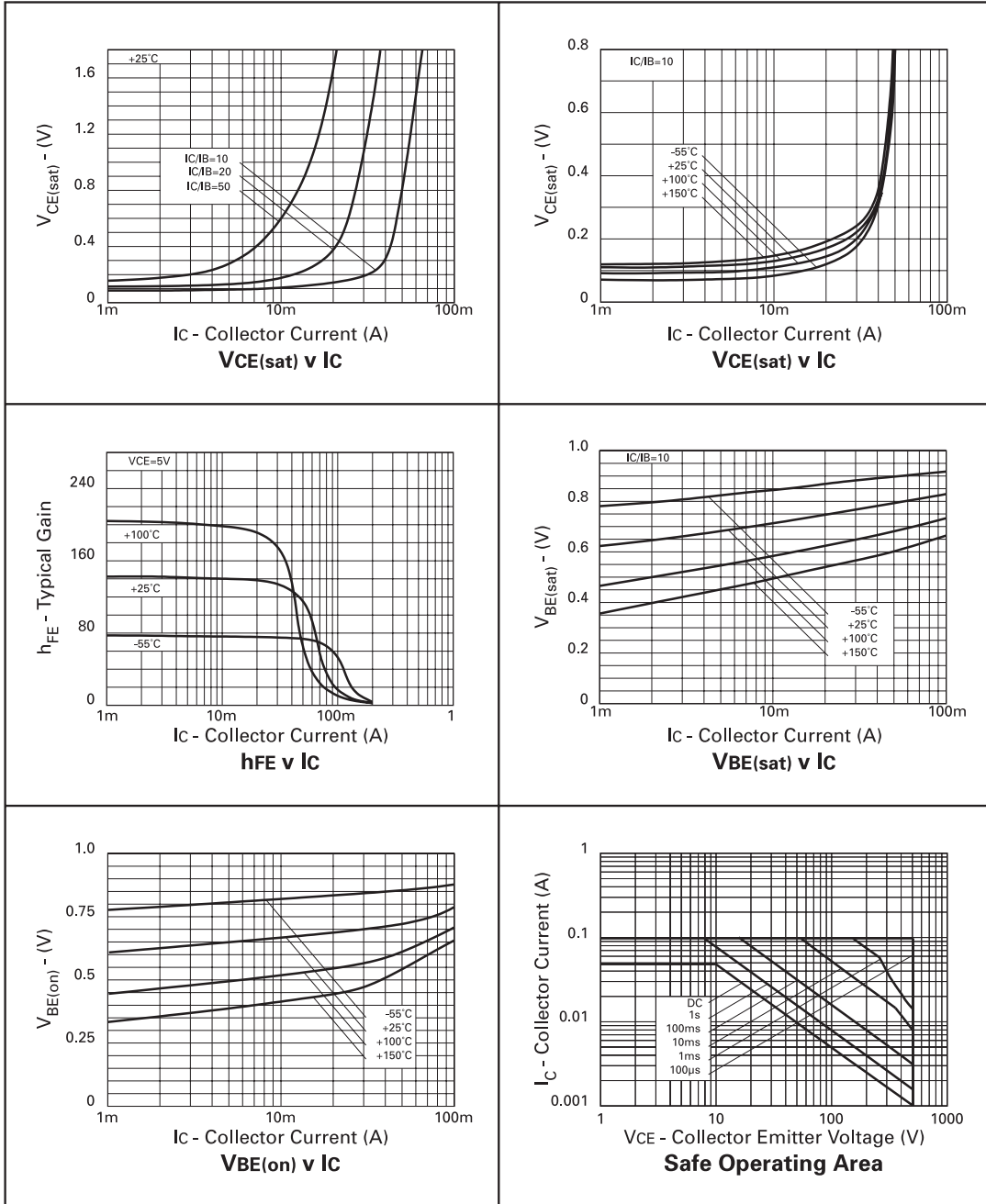
### ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^\circ\text{C}$ )

PARAMETER	SYMBOL	MIN.	MAX.	UNIT	CONDITIONS
Collector-base breakdown voltage	$V_{(BR)CBO}$	-500		V	$I_C = -100\mu\text{A}$
Collector-emitter breakdown voltage	$V_{BR(CEO)}$	-500		V	$I_C = -10\text{mA}^*$
Emitter-base breakdown voltage	$V_{(BR)EBO}$	-5		V	$I_E = -100\mu\text{A}$
Collector cut-off current	$I_{CBO}; I_{CES}$		-100	nA	$V_{CB} = -500\text{V}; V_{CE} = -500\text{V}$
Emitter cut-off current	$I_{EBO}$		-100	nA	$V_{EB} = -5\text{V}$
Collector-emitter saturation voltage	$V_{CE(sat)}$		-0.2 -0.5	V	$I_C = -20\text{mA}, I_B = -2\text{mA}^*$ $I_C = -50\text{mA}, I_B = -10\text{mA}^*$
Base-emitter saturation voltage	$V_{BE(sat)}$		-0.9	V	$I_C = -50\text{mA}, I_B = -10\text{mA}^*$
Base-emitter turn on voltage	$V_{BE(on)}$		-0.9	V	$I_C = -50\text{mA}, V_{CE} = -10\text{V}^*$
Static forward current transfer ratio	$h_{FE}$	100 80 15 typ	300 300		$I_C = -1\text{mA}, V_{CE} = -10\text{V}$ $I_C = -50\text{mA}, V_{CE} = -10\text{V}^*$ $I_C = -100\text{mA}, V_{CE} = -10\text{V}^*$
Transition frequency	$f_T$	60		MHz	$V_{CE} = -20\text{V}, I_C = -10\text{mA}, f = 50\text{MHz}$
Output capacitance	$C_{obo}$		8	pF	$V_{CB} = -20\text{V}, f = 1\text{MHz}$
Switching times	$t_{on}$ $t_{off}$		110 typ. 1.5 typ.	ns $\mu\text{s}$	$V_{CE} = -100\text{V}, I_C = -50\text{mA}, I_{B1} = -5\text{mA}, I_{B2} = 10\text{mA}$

\* Measured under pulsed conditions. Pulse width=300 $\mu\text{s}$ . Duty cycle  $\leq 2\%$

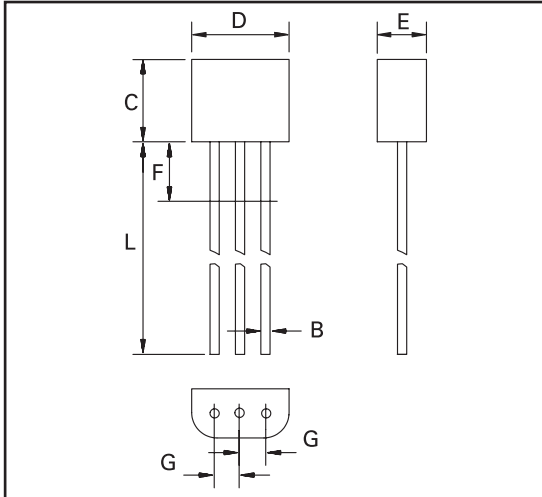
# ZTX560

## TYPICAL CHARACTERISTICS



# ZTX560

## PACKAGE OUTLINE



## PACKAGE DIMENSIONS

DIM	Millimeters		Inches	
	Min	Max	Min	Max
A	0.41	0.495	0.016	0.0195
B	0.41	0.495	0.016	0.0195
C	3.61	4.01	0.142	0.158
D	4.37	4.77	0.172	0.188
E	2.16	2.41	0.085	0.095
F	—	2.50	—	0.098
G	1.27 NOM		0.050 NOM	
L	13.00	13.97	0.512	0.550

© Zetex Semiconductors plc 2006

Europe	Americas	Asia Pacific	Corporate Headquarters
Zetex GmbH Kustermann-park Balanstraße 59 D-81541 München Germany Telefon: (49) 89 45 49 49 0 Fax: (49) 89 45 49 49 49 <a href="mailto:europa.sales@zetex.com">europa.sales@zetex.com</a>	Zetex Inc 700 Veterans Memorial Hwy Hauppauge, NY 11788 USA Telephone: (1) 631 360 2222 Fax: (1) 631 360 8222 <a href="mailto:usa.sales@zetex.com">usa.sales@zetex.com</a>	Zetex (Asia) Ltd 3701-04 Metroplaza Tower 1 Hing Fong Road, Kwai Fong Hong Kong Telephone: (852) 26100 611 Fax: (852) 24250 494 <a href="mailto:asia.sales@zetex.com">asia.sales@zetex.com</a>	Zetex Semiconductors plc Zetex Technology Park Chadderton, Oldham, OL9 9LL United Kingdom Telephone (44) 161 622 4444 Fax: (44) 161 622 4446 <a href="mailto:hq@zetex.com">hq@zetex.com</a>

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](http://www.zetex.com)

ISSUE 2 - SEPTEMBER 2006

