



# THE DATASHEET OF ZTX657



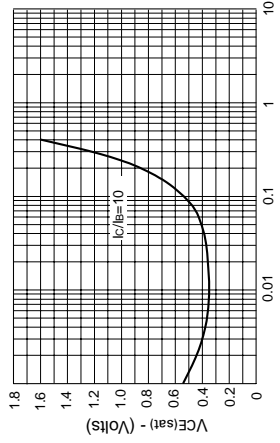
# ZTX656 ZTX657

## NPN SILICON PLANAR ME HIGH VOLTAGE TRANSIS ISSUE 2 - JULY 94

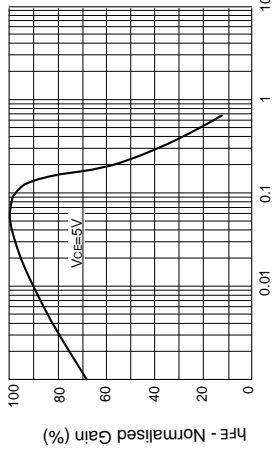
### FEATURES

- \* 300 Volt  $V_{CE0}$
- \* 0.5 Amp continuous current
- \*  $P_{tot}=1$  Watt

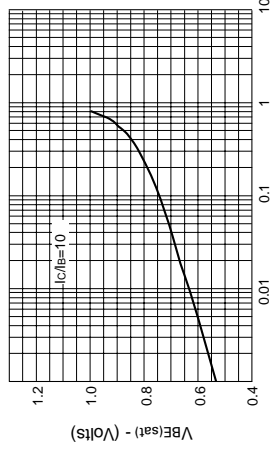
### TYPICAL CHARACTERISTICS



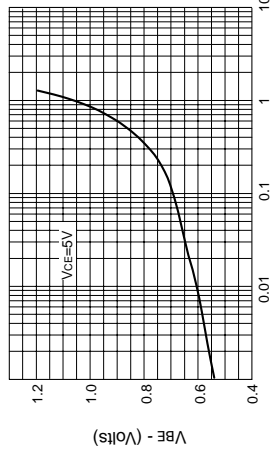
$V_{CE(sat)}$  v  $I_C$   
 $I_C/I_B=10$



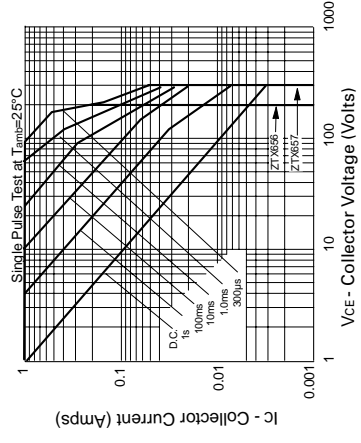
$h_{FE}$  v  $I_C$   
 $V_{CE}=5V$



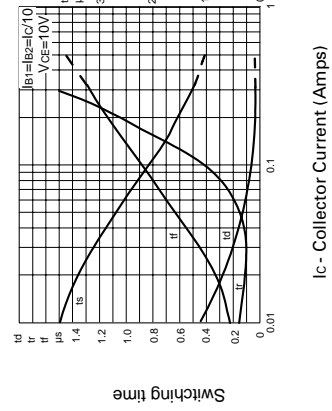
$V_{BE(sat)}$  v  $I_C$   
 $I_C/I_B=10$



$V_{BE(on)}$  v  $I_C$   
 $V_{CE}=5V$



Safe Operating Area



$t_D$  v  $I_C$   
 $I_B=I_C/10$   
 $V_{CE}=10V$

Switching Speeds

### ABSOLUTE MAXIMUM RATINGS

PARAMETER	MIN
Collector-Base Voltage	200
Collector-Emitter Voltage	200
Emitter-Base Voltage	200
Peak Pulse Current	5
Continuous Collector Current	
Power Dissipation at $T_{amb}=25^\circ C$	
Operating and Storage Temperature Range	

### ELECTRICAL CHARACTERISTICS

PARAMETER	SYMBOL	MIN
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	200
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	200
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	5
Collector Cut-Off Current	$I_{CBO}$	
Emitter Cut-Off Current	$I_{EBO}$	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	
Base-Emitter Turn-On Voltage	$V_{BE(on)}$	
Static Forward Current Transfer Ratio	$h_{FE}$	50 40
Transition Frequency	$f_T$	30

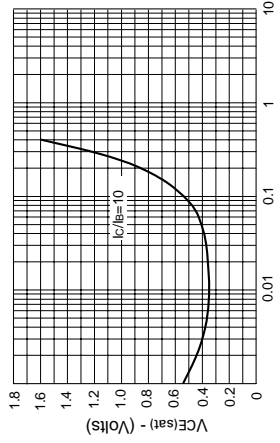
# ZTX656 ZTX657

## NPN SILICON PLANAR ME HIGH VOLTAGE TRANSIS ISSUE 2 - JULY 94

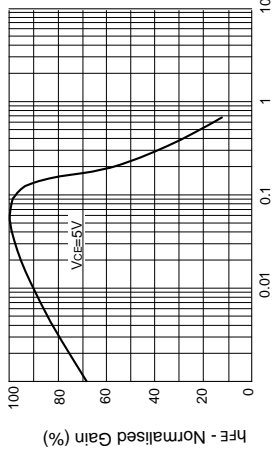
### FEATURES

- \* 300 Volt  $V_{CE0}$
- \* 0.5 Amp continuous current
- \*  $P_{tot}=1$  Watt

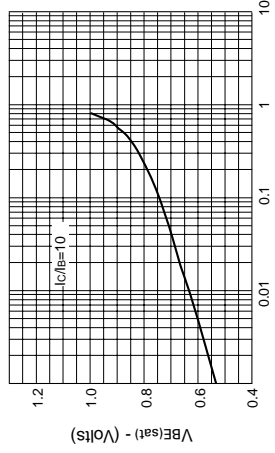
### TYPICAL CHARACTERISTICS



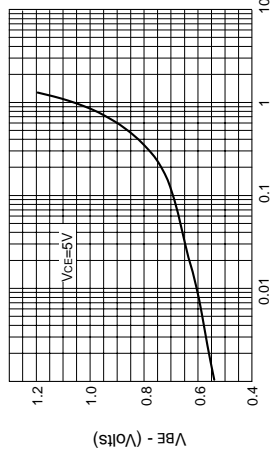
$V_{CE(sat)}$  v  $I_C$   
 $I_C/I_B=10$   
IC - Collector Current (Amps)



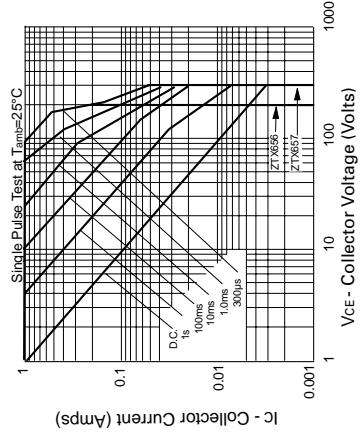
$h_{FE}$  v  $I_C$   
 $V_{CE}=5V$   
IC - Collector Current (Amps)



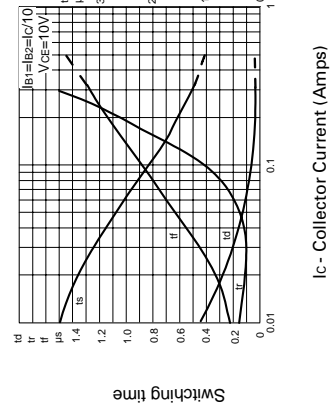
$V_{BE(sat)}$  v  $I_C$   
 $I_C/I_B=10$   
IC - Collector Current (Amps)



$V_{BE(on)}$  v  $I_C$   
 $V_{CE}=5V$   
IC - Collector Current (Amps)



Safe Operating Area



Switching Speeds  
IC - Collector Current (Amps)

### ABSOLUTE MAXIMUM RATINGS



PARAMETER	
Collector-Base Voltage	
Collector-Emitter Voltage	
Emitter-Base Voltage	
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Continuous Collector Current	
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Base-Emitter Saturation Voltage	$V_{BE(sat)}$	
Base-Emitter Turn-On Voltage	$V_{BE(on)}$	
Static Forward Current Transfer Ratio	$h_{FE}$	50 40
Transition Frequency	$f_T$	30

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