

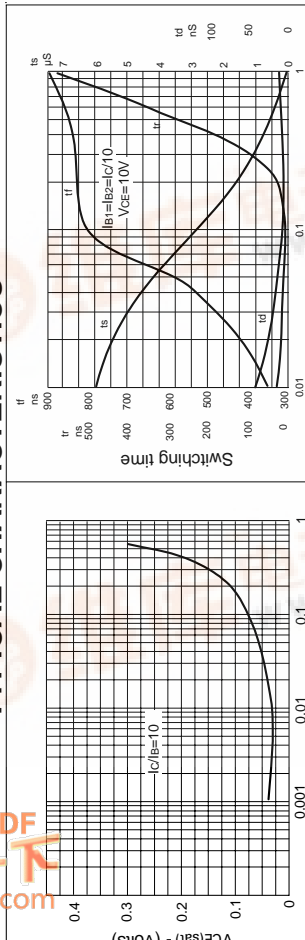
ZTX454  
ZTX455

**NPN SILICON PLANAR  
MEDIUM POWER TRANSISTORS**

ISSUE 2 – MARCH, 1994

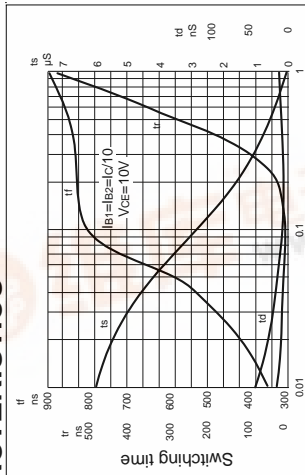
ZTX454  
ZTX455

**TYPICAL CHARACTERISTICS**



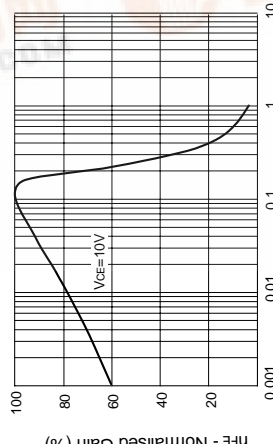
IC - Collector Current (Amps)

VCE(sat) v IC



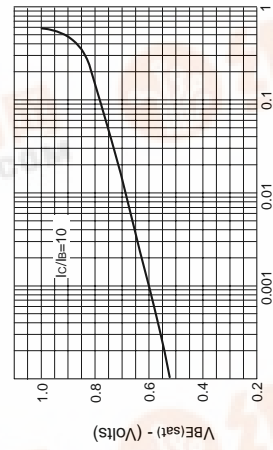
IC - Collector Current (Amps)

Typical Switching Speeds



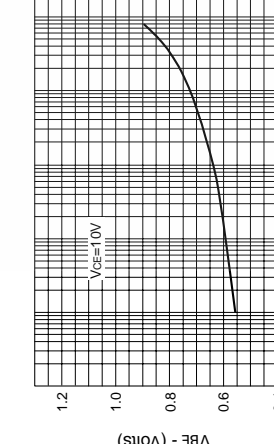
IC - Collector Current (Amps)

hFE v IC



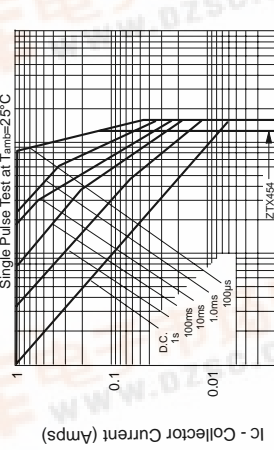
IC - Collector Current (Amps)

VBE(sat) v IC



IC - Collector Current (Amps)

VBE(on) v IC

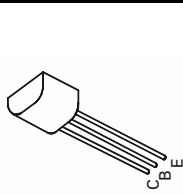


IC - Collector Current (Amps)

Safe Operating Area

**FEATURES**

- \* 140 Volt  $V_{CE0}$
- \* 1 Amp continuous current
- \*  $P_{tot} = 1$  Watt



E-Line  
TO92 Compatible

**ABSOLUTE MAXIMUM RATINGS.**

PARAMETER	SYMBOL	ZTX454	ZTX455	UNIT
Collector-Base Voltage	$V_{CBO}$	140	160	V
Collector-Emitter Voltage	$V_{CEO}$	120	140	V
Emitter-Base Voltage	$V_{EBO}$	5	5	V
Peak Pulse Current	$I_{CM}$	2	2	A
Continuous Collector Current	$I_C$	1	1	A
Power Dissipation at $T_{amb}=25^{\circ}C$	$P_{tot}$	1	1	W
Operating and Storage Temperature Range	$T_j, T_{stg}$	-55 to +200		$^{\circ}C$

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

PARAMETER	SYMBOL	ZTX454		ZTX455		UNIT	CONDITIONS.
		MIN.	MAX.	MIN.	MAX.		
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	140		160		V	$I_C = 100\mu A$
Collector-Emitter Sustaining Voltage	$V_{CEO(sus)}$	120		140		V	$I_C = 10mA^*$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	5		5		V	$I_E = 100\mu A$
Collector Cut-Off Current	$I_{CBO}$		0.1		0.1	$\mu A$	$V_{CB} = 140V$ $V_{CE} = 120V$
Emitter Cut-Off Current	$I_{EBO}$		0.1		0.1	$\mu A$	$V_{EB} = 4V$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	0.7	1.0	0.7	0.7	V	$I_C = 150mA, I_B = 15mA$ $I_C = 200mA, I_B = 20mA$
Static Forward Current Transfer Ratio	$h_{FE}$	100	300	100	300		$I_C = 150mA, V_{CE} = 10V^*$ $I_C = 200mA, V_{CE} = 1V^*$
Transition Frequency	$f_T$	100	100	100	100	MHz	$I_C = 1A, V_{CE} = 10V^*$
Output Capacitance	$C_{obo}$		15		15	pF	$I_C = 50mA, V_{CE} = 10V$ $f = 100MHz$

\* Measured under pulsed conditions. Pulse width=300 $\mu s$ . Duty cycle  $\leq 2\%$   
† Typical

查询ZTX454供应商

捷多邦, 专业PCB打样工厂, 24小时加急出货

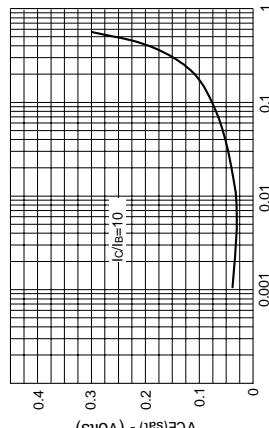
# ZTX454 ZTX455

# NPN SILICON PLANAR MEDIUM POWER TRANSISTORS

ISSUE 2 - MARCH 1994

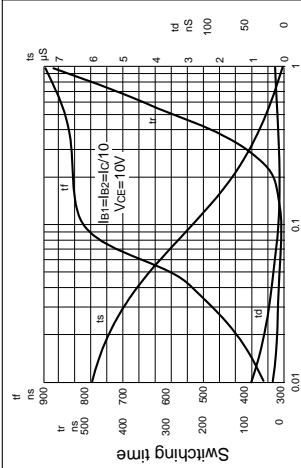
# ZTX454 ZTX455

## TYPICAL CHARACTERISTICS



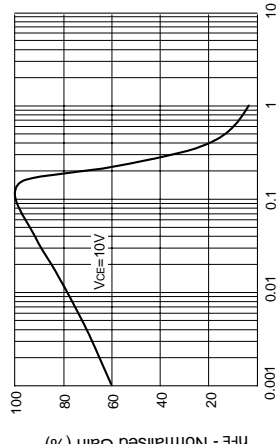
IC - Collector Current (Amps)

VCE(sat) v IC



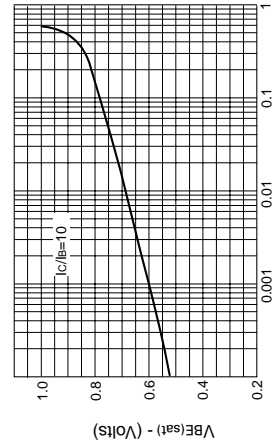
IC - Collector Current (Amps)

Typical Switching Speeds



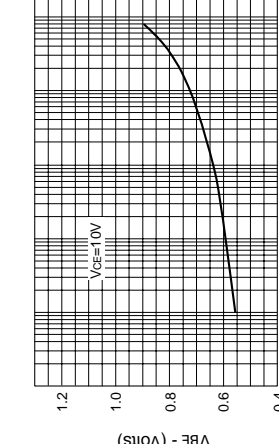
IC - Collector Current (Amps)

hFE v IC



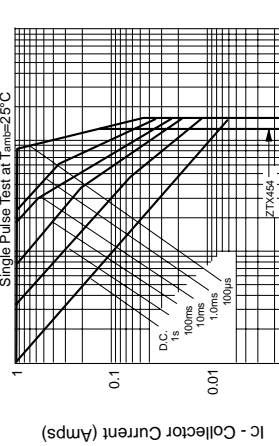
IC - Collector Current (Amps)

VBE(sat) v IC



IC - Collector Current (Amps)

VBE(on) v IC

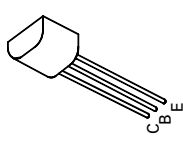


IC - Collector Current (Amps)

Safe Operating Area

## FEATURES

- \* 140 Volt V<sub>CEO</sub>
- \* 1 Amp continuous current
- \* P<sub>tot</sub> = 1 Watt



E-Line  
TO92 Compatible

## ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	ZTX454	ZTX455	UNIT
Collector-Base Voltage	V <sub>CB0</sub>	140	160	V
Collector-Emitter Voltage	V <sub>CE0</sub>	120	140	V
Emitter-Base Voltage	V <sub>EB0</sub>	5	5	V
Peak Pulse Current	I <sub>CM</sub>	2	2	A
Continuous Collector Current	I <sub>C</sub>	1	1	A
Power Dissipation at T <sub>amb</sub> =25°C	P <sub>tot</sub>	1	1	W
Operating and Storage Temperature Range	T <sub>j</sub> ; T <sub>stg</sub>	-55 to +200		°C

## ELECTRICAL CHARACTERISTICS (at T<sub>amb</sub> = 25°C).

PARAMETER	SYMBOL	ZTX454		ZTX455		UNIT	CONDITIONS.
		MIN.	MAX.	MIN.	MAX.		
Collector-Base Breakdown Voltage	V <sub>(BR)CB0</sub>	140		160		V	I <sub>C</sub> =100μA
Collector-Emitter Sustaining Voltage	V <sub>CE0(sus)</sub>	120		140		V	I <sub>C</sub> =10mA*
Emitter-Base Breakdown Voltage	V <sub>(BR)EB0</sub>	5		5		V	I <sub>E</sub> =100μA
Collector Cut-Off Current	I <sub>CB0</sub>		0.1		0.1	μA	V <sub>CB</sub> =140V V <sub>CE</sub> =120V
Emitter Cut-Off Current	I <sub>EB0</sub>		0.1		0.1	μA	V <sub>EB</sub> =4V
Collector-Emitter Saturation Voltage	V <sub>CE(sat)</sub>	0.7 1.0		0.7 1.0		V	I <sub>C</sub> =150mA, I <sub>B</sub> =15mA I <sub>C</sub> =200mA, I <sub>B</sub> =20mA
Static Forward Current Transfer Ratio	h <sub>FE</sub>	100 30 10†		100 30 10†		300	I <sub>C</sub> =150mA, V <sub>CE</sub> =10V* I <sub>C</sub> =200mA, V <sub>CE</sub> =1V* I <sub>C</sub> =1A, V <sub>CE</sub> =10V*
Transition Frequency	f <sub>T</sub>	100		100		MHz	I <sub>C</sub> =50mA, V <sub>CE</sub> =10V f=100MHz
Output Capacitance	C <sub>obo</sub>		15		15	pF	V <sub>CB</sub> =10V, f=1MHz

\* Measured under pulsed conditions. Pulse width=300μs. Duty cycle ≤ 2%  
† Typical