

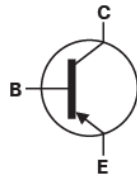
400V PNP MEDIUM POWER HIGH VOLTAGE TRANSISTOR

Features and Benefits

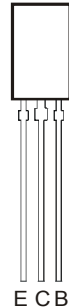
- $V_{CE0} = 400V$
- Power dissipation $P_D = 1W$
- **Lead, Halogen and Antimony Free, RoHS Compliant (Note 1)**
- **"Green" Device (Note 2)**

Mechanical Data

- Case: TO92L
- Case Material: Molded Plastic, "Green" Molding Compound. UL Flammability Classification Rating 94V-0
- Terminals: Pure Tin Finish.
- Weight: 0.272 grams (approximate)



Device Symbol



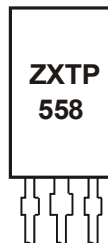
Top View
Pin-Out

Ordering Information (Note 3)

Product	Status	Marking	Quantity per box on tape
ZXTP558LSTZ	Active	ZXTP558	2,000

- Notes:
1. No purposefully added lead. Halogen and Antimony free: <900ppm bromine, <900ppm chlorine (<1500ppm total) and <1000ppm antimony compounds.
 2. Diodes Inc.'s "Green" Policy can be found on our website at <http://www.diodes.com>
 3. For lead form and taping specification, please visit our website at <http://www.diodes.com>

Marking Information



ZXTP558 = Product Type Marking Code

Maximum Ratings @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	-400	V
Collector-Emitter Voltage	V_{CEO}	-400	V
Emitter-Base Voltage	V_{EBO}	-7	V
Continuous Collector Current	I_C	-500	mA

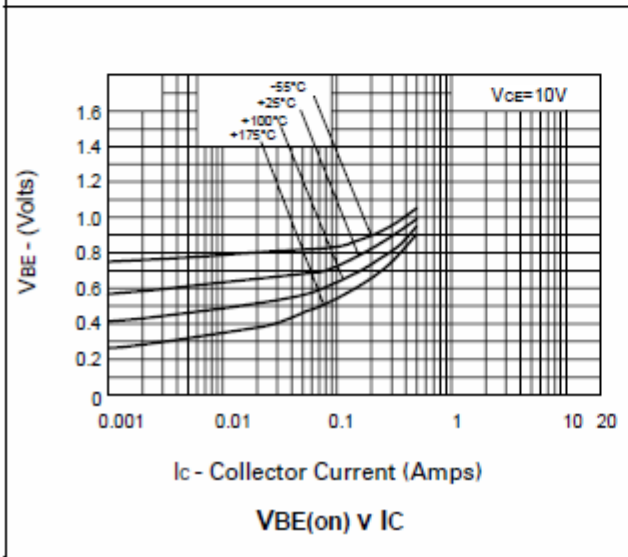
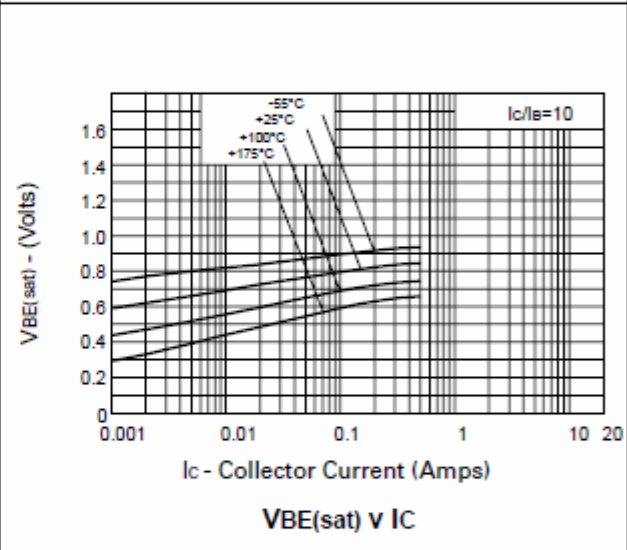
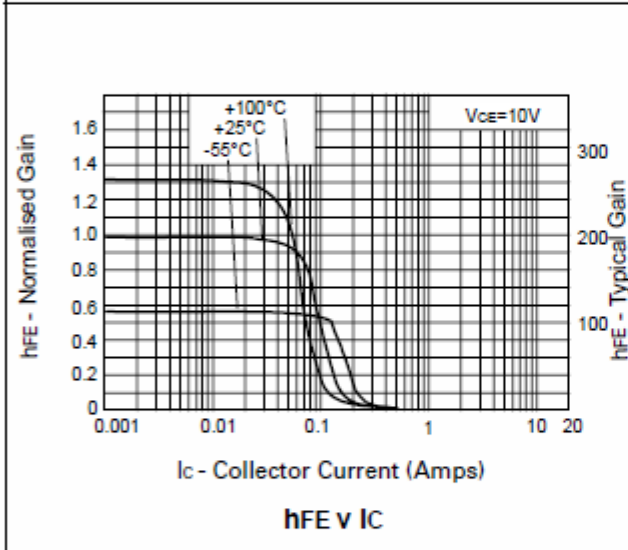
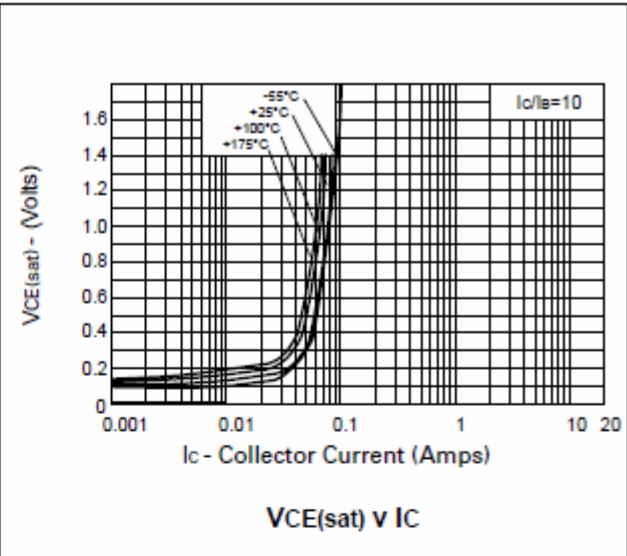
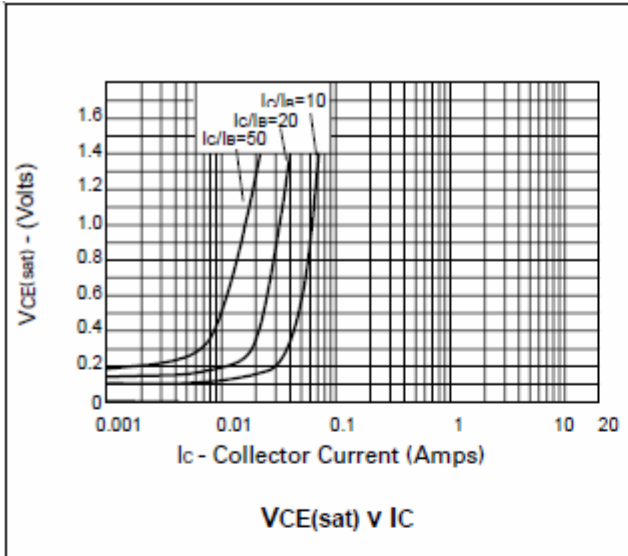
Thermal Characteristics

Characteristic	Symbol	Value	Unit
Power Dissipation (Note x)	P_D	1	W
Thermal Resistance, Junction to Ambient @ $T_A = 25^\circ\text{C}$	$R_{\theta JA}$	125	$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150	$^\circ\text{C}$

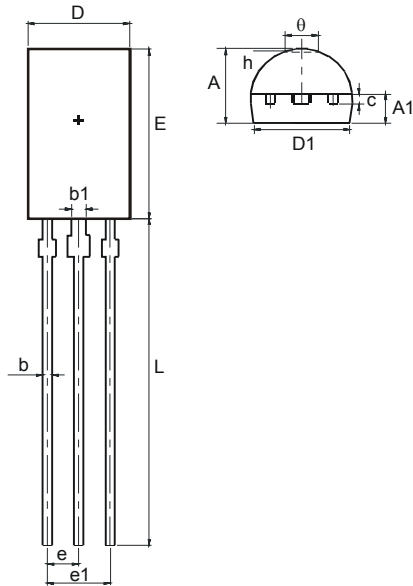
Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-400	—	—	V	$I_C = -100\mu\text{A}$
Collector-Emitter Breakdown Voltage (Note 4)	$V_{(BR)CEO}$	-400	—	—	V	$I_C = -10\text{mA}$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-7	—	—	V	$I_E = -100\mu\text{A}$
Collector Cutoff Current	I_{CBO}	—	—	-100	nA	$V_{CB} = -320\text{V}$
Emitter Cutoff Current	I_{CES}	—	—	-100	nA	$V_{CE} = -320\text{V}$
Base Cutoff Current	I_{EBO}	—	—	-100	nA	$V_{BE} = -4\text{V}$
DC Current Gain (Note 4)	h_{FE}	100 100	—	— 300	—	$V_{CE} = -10\text{V}, I_C = -1\text{mA}$ $V_{CE} = -10\text{V}, I_C = -50\text{mA}$
Collector-Emitter Saturation Voltage (Note 4)	$V_{CE(sat)}$	— —	— —	-0.2 -0.5	V	$I_C = -20\text{mA}, I_B = -2\text{mA}$ $I_C = -50\text{mA}, I_B = -6\text{mA}$
Base-Emitter Turn-On Voltage	$V_{BE(on)}$	—	—	-0.9	V	$V_{CE} = -10\text{V}, I_C = -50\text{mA}$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	—	—	-0.9	V	$I_C = -50\text{mA}, I_B = -5\text{mA}$
Output Capacitance (Note 4)	C_{obo}	—	—	5	pF	$V_{CB} = -20\text{V}, f = 1.0\text{MHz}$
Current Gain-Bandwidth Product	f_T	50	—	—	MHz	$V_{CE} = -20\text{V}, I_C = -10\text{mA}, f = 20\text{MHz}$
Turn-On Time	t_{on}	—	95	—	ns	$V_{CE} = -100\text{V}, I_C = -50\text{mA}$
Turn-Off Time	t_{off}	—	1600	—	ns	$I_{B1} = 5\text{mA}, I_{B2} = -10\text{mA}$

Notes: 4. Measured under pulsed conditions. Pulse width = 300 μs ; Duty cycle $\leq 2\%$.



Package Outline Dimensions



TO92L		
Dim	Min	Max
A	3.70	4.10
A1	1.28	1.58
b	0.35	0.55
b1	0.60	0.80
c	0.35	0.45
D	4.70	5.10
D1	4.00	-
e	1.270 Typ	
e1	2.44	2.64
E	7.80	8.20
L	13.80	14.20
h	0.00	0.30
theta	-	1.60
All Dimensions in mm		

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