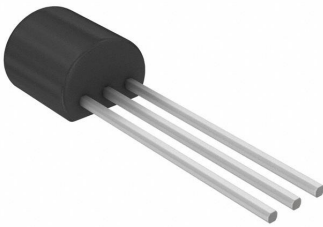


# ZTX718STOA Datasheet

[www.digi-electronics.com](http://www.digi-electronics.com)



<https://www.DiGi-Electronics.com>

DiGi Electronics Part Number	ZTX718STOA-DG
Manufacturer	<a href="#">Diodes Incorporated</a>
Manufacturer Product Number	ZTX718STOA
Description	TRANS PNP 20V 2.5A E-LINE
Detailed Description	Bipolar (BJT) Transistor PNP 20 V 2.5 A 180MHz 1 W Through Hole E-Line (TO-92 compatible)



Tel: +00 852-30501935

RFQ Email: [Info@DiGi-Electronics.com](mailto:Info@DiGi-Electronics.com)

DiGi is a global authorized distributor of electronic components.

## Purchase and inquiry

Manufacturer Product Number:

ZTX718STOA

Series:

-

Transistor Type:

PNP

Voltage - Collector Emitter Breakdown (Max):

20 V

Current - Collector Cutoff (Max):

100nA

Power - Max:

1 W

Operating Temperature:

-55°C ~ 200°C (TJ)

Package / Case:

E-Line-3, Formed Leads

Base Product Number:

ZTX718

Manufacturer:

Diodes Incorporated

Product Status:

Obsolete

Current - Collector (Ic) (Max):

2.5 A

Vce Saturation (Max) @ Ib, Ic:

260mV @ 200mA, 2.5A

DC Current Gain (hFE) (Min) @ Ic, Vce:

150 @ 2A, 2V

Frequency - Transition:

180MHz

Mounting Type:

Through Hole

Supplier Device Package:

E-Line (TO-92 compatible)

## Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8541.29.0075

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99

# PNP SILICON PLANAR MEDIUM POWER HIGH GAIN TRANSISTOR

## ZTX718

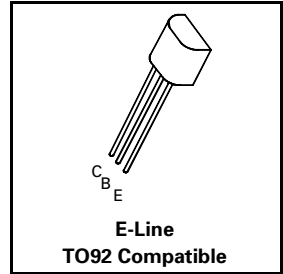
ISSUE 4- MAY 1998

### FEATURES

- \* 6A Peak pulse current
- \* Excellent  $h_{FE}$  characteristics up to 6A (pulsed)
- \* low saturation voltage
- \*  $I_C$  Cont 2.5A

### APPLICATIONS

- \* Power MOSFET gate driver in conjunction with complementary ZTX618



### ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	$V_{CBO}$	-20	V
Collector-Emmitter Voltage	$V_{CEO}$	-20	V
Emitter-Base Voltage	$V_{EBO}$	-5	V
Peak Pulse Current	$I_{CM}$	-6	A
Continuous Collector Current	$I_C$	-2.5	A
Base Current	$I_B$	-500	mA
Practical Power Dissipation*	$P_{totp}$	1.5	W
Power Dissipation at $T_{amb}=25^{\circ}C$	$P_{tot}$	1	W
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +200	$^{\circ}C$

\* Device mounted on P.C.B. with copper equal to 1 sq. Inch minimum.

# ZTX718

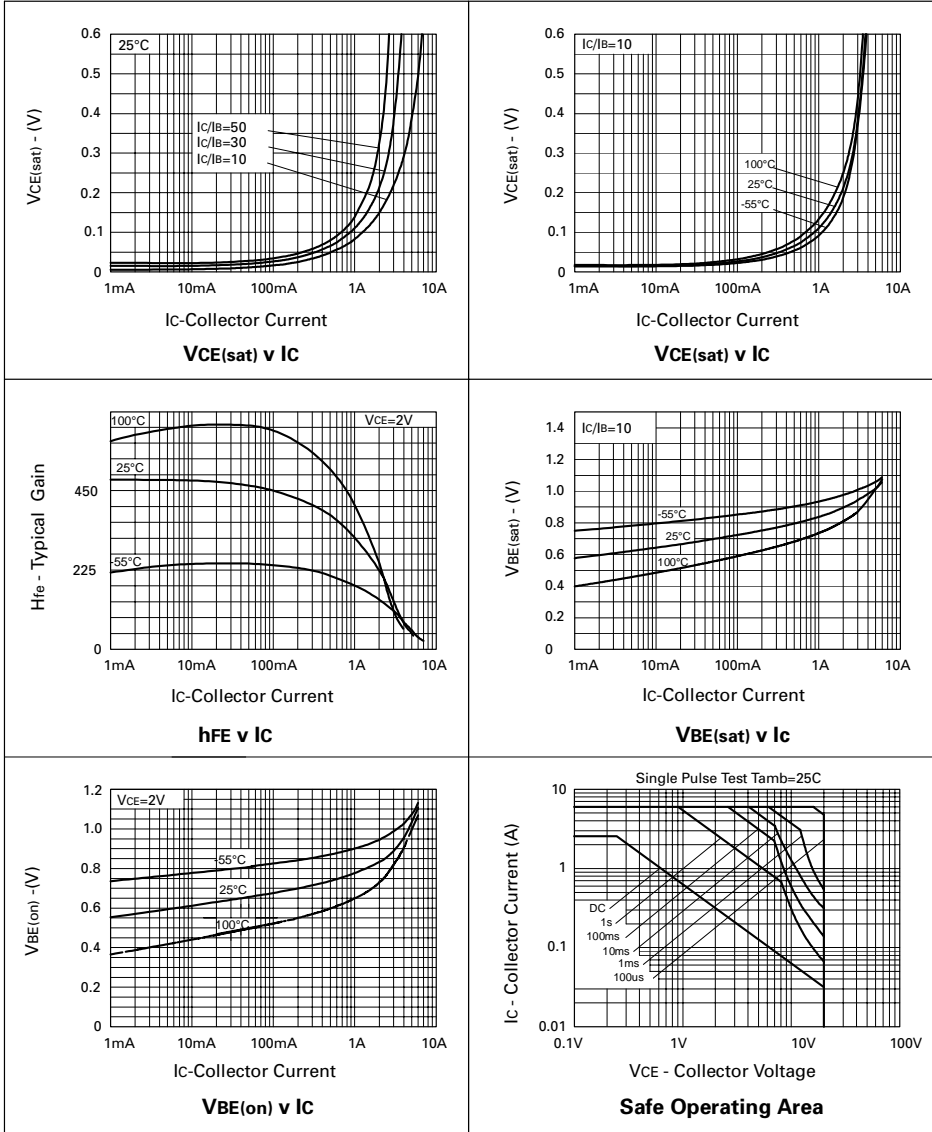
## ELECTRIAL CHARACTERISTICS (at $T_{amb} = 25^{\circ}\text{C}$ unless otherwise stated).

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-20	-65		V	$I_C = -100\mu\text{A}$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-20	-55		V	$I_C = -10\text{mA}^*$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5	-8.8		V	$I_E = -100\mu\text{A}$
Collector Cut-Off Current	$I_{CBO}$			-100	nA	$V_{CB} = -15\text{V}$
Emitter Cut-Off Current	$I_{EBO}$			-100	nA	$V_{EB} = -4\text{V}$
Collector Emitter Cut-Off Current	$I_{CES}$			-100	nA	$V_{CES} = -15\text{V}$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		-16 -130 -145 -190	-40 -200 -220 -260	mV mV mV mV	$I_C = -0.1\text{A}, I_B = -10\text{mA}^*$ $I_C = -1\text{A}, I_B = -20\text{mA}^*$ $I_C = -1.5\text{A}, I_B = -50\text{mA}^*$ $I_C = -2.5\text{A}, I_B = -200\text{mA}^*$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		-0.98	-1.1	V	$I_C = -2.5\text{A}, I_B = -200\text{mA}^*$
Base-Emitter Turn-On Voltage	$V_{BE(on)}$		-0.85	-0.95	V	$I_C = -2.5\text{A}, V_{CE} = -2\text{V}^*$
Static Forward Current Transfer Ratio	$h_{FE}$	300 300 150 35 15	475 450 230 70 30			$I_C = -10\text{mA}, V_{CE} = -2\text{V}^*$ $I_C = -100\text{mA}, V_{CE} = -2\text{V}^*$ $I_C = -2\text{A}, V_{CE} = -2\text{V}^*$ $I_C = -4\text{A}, V_{CE} = -2\text{V}^*$ $I_C = -6\text{A}, V_{CE} = -2\text{V}^*$
Transition Frequency	$f_T$	150	180		MHz	$I_C = -50\text{mA}, V_{CE} = -10\text{V}$ $f = 100\text{MHz}$
Output Capacitance	$C_{obo}$		21	30	pF	$V_{CB} = -10\text{V}, f = 1\text{MHz}$
Turn-On Time	$t_{(on)}$		40		ns	$V_{CC} = -10\text{V}, I_C = -1\text{A}$ $I_{B1} = I_{B2} = 20\text{mA}$
Turn-Off Time	$t_{(off)}$		670		ns	

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

# ZTX718

## TYPICAL CHARACTERISTICS

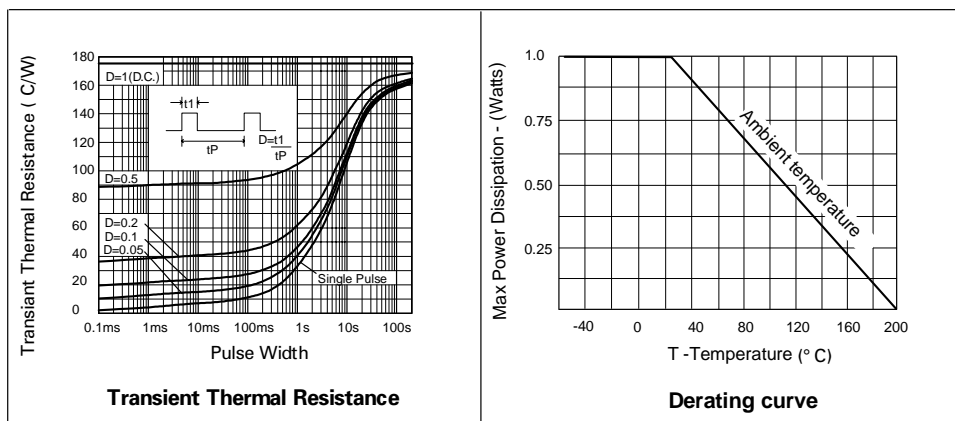


# ZTX718

## THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	MAX.	UNIT
Thermal Resistance:			
Junction to Ambient <sub>1</sub>	$R_{th(j-amb)1}$	175	°C/W
Junction to Ambient <sub>2</sub>	$R_{th(j-amb)2} †$	116	°C/W

† Device mounted on P.C.B. with copper equal to 1 sq. Inch minimum.



**ZETEX**  
 Zetex plc.  
 Fields New Road, Chadderton, Oldham, OL9-8NP, United Kingdom.  
 Telephone: (44)161 622 4422 (Sales), (44)161 622 4444 (General Enquiries)  
 Fax: (44)161 622 4420

Zetex GmbH  
 Streifeldstraße 19  
 D-81673 München  
 Germany  
 Telefon: (49) 89 45 49 49 0  
 Fax: (49) 89 45 49 49 49

Zetex Inc.  
 47 Mall Drive, Unit 4  
 Commack NY 11725  
 USA  
 Telephone: (516) 543-7100  
 Fax: (516) 864-7630

Zetex (Asia) Ltd.  
 3510 Metroplaza, Tower 2  
 Hing Fong Road,  
 Kwai Fong, Hong Kong  
 Telephone: (852) 26100 611  
 Fax: (852) 24250 494

These are supported by  
 agents and distributors in  
 major countries world-wide  
 ©Zetex plc 1998

Internet: <http://www.zetex.com>

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.



## OUR CERTIFICATE

DiGi provide top-quality products and perfect service for customer worldwide through standardization, technological innovation and continuous improvement. DiGi through third-party certification, we stricly control the quality of products and services. Welcome your RFQ to

Email: [Info@DiGi-Electronics.com](mailto:Info@DiGi-Electronics.com)



Tel: +00 852-30501935

RFQ Email: [Info@DiGi-Electronics.com](mailto:Info@DiGi-Electronics.com)

DiGi is a global authorized distributor of electronic components.