

# MPSA92,126 Datasheet

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DiGi Electronics Part Number

Manufacturer Product Number

Description

Manufacturer

**Detailed Description** 

MPSA92,126-DG

NXP USA Inc.

MPSA92,126

TRANS PNP 300V 0.1A TO92-3

Bipolar (BJT) Transistor PNP 300 V 100 mA 50MHz 6 25 mW Through Hole TO-92-3

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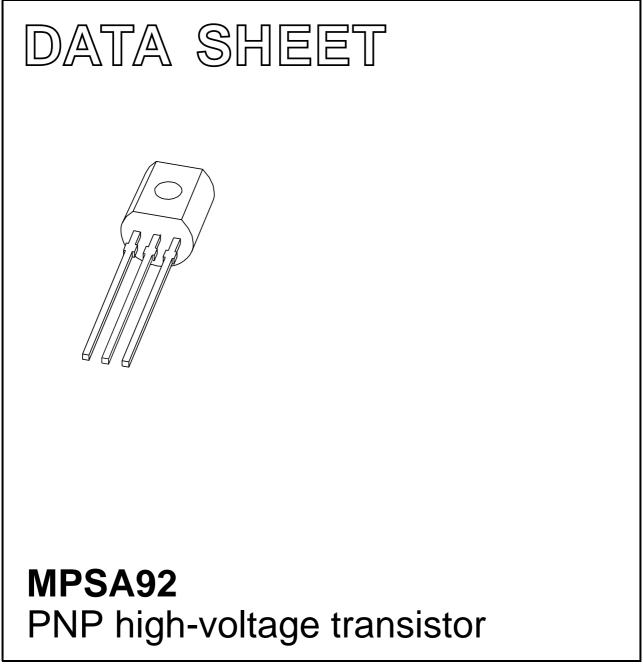
# Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
MPSA92,126	NXP USA Inc.
Series:	Product Status:
	Obsolete
Transistor Type:	Current - Collector (Ic) (Max):
PNP	100 mA
Voltage - Collector Emitter Breakdown (Max):	Vce Saturation (Max) @ lb, lc:
300 V	500mV @ 2mA, 20mA
Current - Collector Cutoff (Max):	DC Current Gain (hFE) (Min) @ lc, Vce:
250nA (ICBO)	25 @ 30mA, 10V
Power - Max:	Frequency - Transition:
625 mW	50MHz
Operating Temperature:	Mounting Type:
150°C (TJ)	Through Hole
Package / Case:	Supplier Device Package:
TO-226-3, TO-92-3 (TO-226AA) Formed Leads	TO-92-3
Base Product Number:	
MPSA92	

# **Environmental & Export classification**

RoHS Status:	Moisture Sensitivity Level (MSL):
ROHS3 Compliant	1 (Unlimited)
REACH Status:	ECCN:
REACH Unaffected	EAR99
HTSUS:	
8541.21.0095	

DISCRETE SEMICONDUCTORS



Product data sheet Supersedes data of 2001 Dec 07 2004 Aug 20



# **NXP Semiconductors**

# Product data sheet

MPSA92

# PNP high-voltage transistor

## FEATURES

- Low current (max. 100 mA)
- High voltage (max. 300 V).

## APPLICATIONS

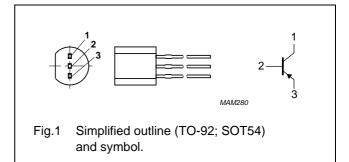
• General purpose switching and amplification.

## DESCRIPTION

PNP high-voltage transistor in a TO-92; SOT54 plastic package. NPN complement: MPSA42.

## PINNING

PIN	DESCRIPTION
1	collector
2	base
3	emitter



## LIMITING VALUES

In accordance with the Absolute Maximum Rating System (IEC 60134).

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
V <sub>CBO</sub>	collector-base voltage	open emitter	_	-300	V
V <sub>CEO</sub>	collector-emitter voltage	open base	_	-300	V
V <sub>EBO</sub>	emitter-base voltage	open collector	-	-5	V
I <sub>C</sub>	collector current (DC)		-	-100	mA
I <sub>CM</sub>	peak collector current		_	-200	mA
I <sub>BM</sub>	peak base current		-	-100	mA
P <sub>tot</sub>	total power dissipation	$T_{amb} \le 25 \ ^{\circ}C$	-	625	mW
T <sub>stg</sub>	storage temperature		-65	+150	°C
Тj	junction temperature		_	150	°C
T <sub>amb</sub>	operating ambient temperature		-65	+150	°C

# PNP high-voltage transistor

# MPSA92

## THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
R <sub>th j-a</sub>	thermal resistance from junction to ambient	note 1	200	K/W

#### Note

1. Transistor mounted on an FR4 printed-circuit board.

## CHARACTERISTICS

 $T_i = 25 \ ^{\circ}C$  unless otherwise specified.

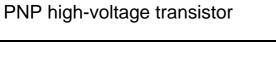
SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
I <sub>CBO</sub>	collector cut-off current	$I_E = 0; V_{CB} = -200 V$	-	-250	nA
I <sub>EBO</sub>	emitter cut-off current	$I_{C} = 0; V_{BE} = -3 V$	-	-100	nA
h <sub>FE</sub>	DC current gain	V <sub>CE</sub> = -10 V; note 1			
		$I_{\rm C} = -1  \mathrm{mA}$	25	-	
		I <sub>C</sub> = -10 mA	40	-	
		I <sub>C</sub> = -30 mA	25	_	
V <sub>CEsat</sub>	collector-emitter saturation voltage	$I_{C} = -20 \text{ mA}; I_{B} = -2 \text{ mA}; \text{ note } 1$	-	-500	mV
V <sub>BEsat</sub>	base-emitter saturation voltage	$I_{C} = -20 \text{ mA}; I_{B} = -2 \text{ mA}; \text{ note } 1$	-	-900	mV
Cc	collector capacitance	I <sub>E</sub> =i <sub>e</sub> = 0; V <sub>CB</sub> = -20 V; f = 1 MHz	_	6	pF
f <sub>T</sub>	transition frequency	$I_{C} = -10 \text{ mA}; V_{CE} = -20 \text{ V};$ f = 100 MHz	50	-	MHz

## Note

1. Pulse test:  $t_p \leq 300~\mu\text{s};~\delta \leq 0.02.$ 

2004 Aug 20

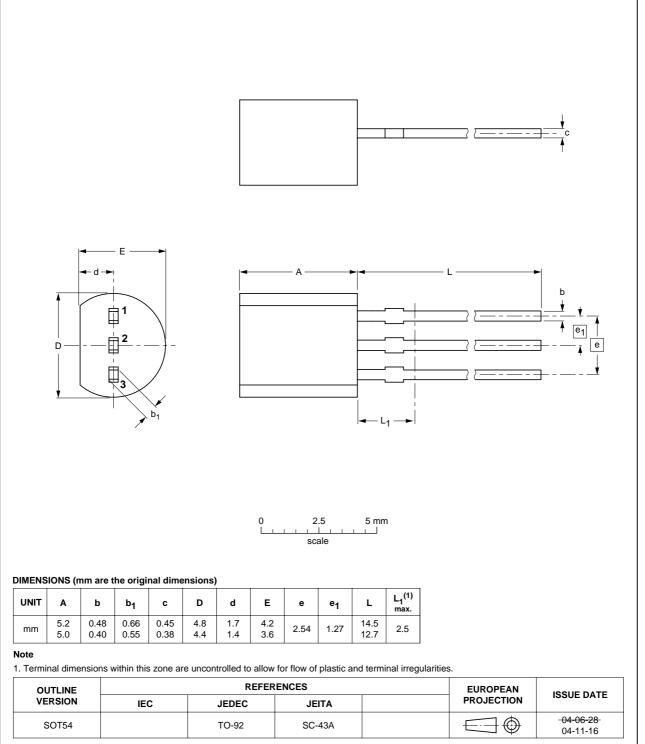




Plastic single-ended leaded (through hole) package; 3 leads

**NXP** Semiconductors

**PACKAGE OUTLINE** 



SOT54

MPSA92

# PNP high-voltage transistor

MPSA92

## DATA SHEET STATUS

DOCUMENT STATUS <sup>(1)</sup>	PRODUCT STATUS <sup>(2)</sup>	DEFINITION
Objective data sheet	Development	This document contains data from the objective specification for product development.
Preliminary data sheet	Qualification	This document contains data from the preliminary specification.
Product data sheet	Production	This document contains the product specification.

#### Notes

- 1. Please consult the most recently issued document before initiating or completing a design.
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# NXP Semiconductors

### **Customer notification**

This data sheet was changed to reflect the new company name NXP Semiconductors, including new legal definitions and disclaimers. No changes were made to the technical content, except for package outline drawings which were updated to the latest version.

#### **Contact information**

For additional information please visit: http://www.nxp.com For sales offices addresses send e-mail to: salesaddresses@nxp.com

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Printed in The Netherlands

R75/05/pp6

Date of release: 2004 Aug 20

Document order number: 9397 750 13633





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