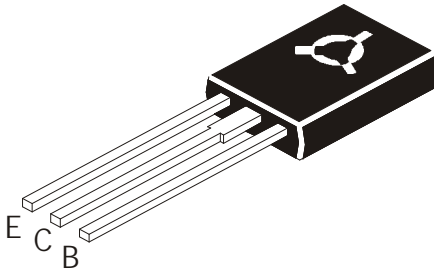


## NPN SILICON EPITAXIAL TRANSISTOR

**2N4923**  
**TO-126**



### General Purpose Power Transistor

#### ABSOLUTE MAXIMUM RATINGS (Ta=25 deg C)

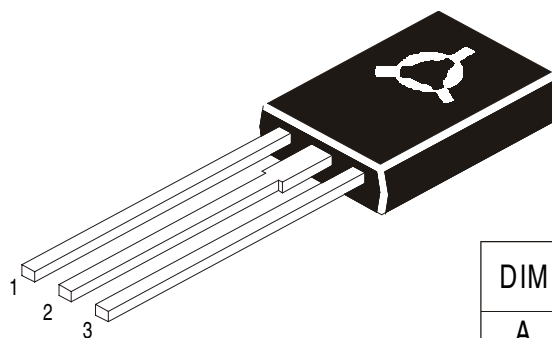
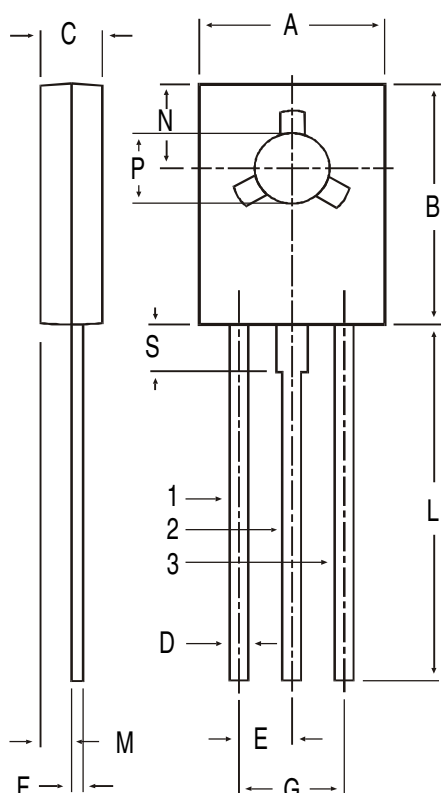
DESCRIPTION		VALUE	UNIT
Collector -Base Voltage	VCBO	80	V
Collector -Emitter Voltage	VCEO	80	V
Emitter Base Voltage	VEBO	5.0	V
Collector Current Continuous	IC	3.0	A
Base Current	IB	1.0	A
Power Dissipation @ Tc=25 deg C	PD	30	W
Derate Above 25 deg C		0.24	W/deg C
Operating And Storage Junction Temperature Range	Tj, Tstg	-65 to +150	deg C
Lead Temperature for Soldering 1/16" from Body for 10 Seconds.	TL	260	deg C
Thermal Resistance Junction to Case	Rth (j-c)	4.16	deg C/W

#### ELECTRICAL CHARACTERISTICS (Ta=25 deg C Unless Otherwise Specified)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Collector -Emitter Sustaining Voltage	VCEO(sus)	IC=100mA, IB=0	80	-	-	V
Collector Cut off Current	ICEO	VCE=40V, IB=0	-	-	0.5	mA
	ICBO	VCB=80V, IE=0	-	-	0.1	mA
	ICEX	VCB=80V, VEB(Off)=1.5V Tc=125 deg C	-	-	0.1	mA
		VCB=80V, VEB(Off)=1.5V	-	-	0.5	mA
Emitter Cut off Current	IEBO	VEB=5V, IC=0	-	-	1.0	mA
DC Current Gain	hFE *	IC=50mA, VCE=1V	40	-	-	-
		IC=500mA, VCE=1V	30	-	150	-
		IC=1A, VCE=1V	10	-	-	-
Collector Emitter Saturation Voltage	VCE(sat)*	IC=1A, IB=0.1A	-	-	0.6	V
Base Emitter Saturation Voltage	VBE(sat)*	IC=1A, IB=0.1A	-	-	1.3	V
Base Emitter on Voltage	VBE(on) *	IC=1A, VCE=1V	-	-	1.3	V
<b>DYNAMIC CHARACTERISTICS</b>						
Transistors frequency	ft	IC=250mA, VCE=10V, f=1MHz	3.0	-	-	MHz
Output Capacitance	Cob	VCB=10V, IE=0, f=100kHz	-	-	100	pF
Small Signal Current Gain	hfe	IC=250mA, VCE=10V, f=1kHz	25	-	-	-

\*Pulse Test PW=300us, Duty Cycle=2%

## TO-126 (SOT-32) Plastic Package



### PIN CONFIGURATION

1. EMITTER
2. COLLECTOR
3. BASE

DIM	MIN.	MAX.
A	7.4	7.8
B	10.5	10.8
C	2.4	2.7
D	0.7	0.9
E	2.25 TYP.	
F	0.49	0.75
G	4.5 TYP.	
L	15.7 TYP.	
M	1.27 TYP.	
N	3.75 TYP.	
P	3.0	3.2
S	2.5 TYP.	

All dimensions in mm.

## Packing Detail

PACKAGE	STANDARD PACK		INNER CARTON BOX		OUTER CARTON BOX		
	Details	Net Weight/Qty	Size	Qty	Size	Qty	Gr Wt
TO-126	500 pcs/polybag	340 gm/500 pcs	3" x 7.5" x 7.5"	2.0K	17" x 15" x 13.5"	32.0K	31 kgs

## Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Discrete Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished on the CDIL Web Site/CD is believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Discrete Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

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