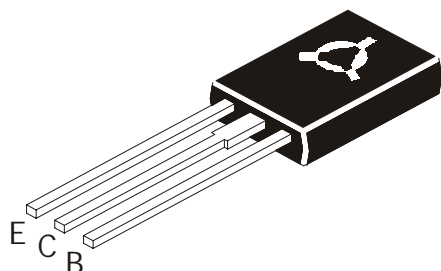


## SILICON POWER DARLINGTON TRANSISTORS

(PNP) 2N6034, 2N6035, 2N6036  
(NPN) 2N6037, 2N6038, 2N6039



TO126  
Plastic Package

Designed for General -Purpose Amplifier & Low Speed Switching Applications.

### ABSOLUTE MAXIMUM RATINGS(Ta=25°C unless specified otherwise)

DESCRIPTION	SYMBOL	2n6034 2n6037	2N6035 2N6038	2N6036 2N6039	UNIT
Collector -Base Voltage	$V_{CBO}$	40	60	80	V
Collector -Emitter Voltage	$V_{CEO}$	40	60	80	V
Emitter Base Voltage	$V_{EBO}$		5.0		V
Collector Current Continuous	$I_C$		4.0		A
Collector Current (Peak Value)			8.0		A
Base Current	$I_B$		100		mA
Total Power Dissipation @ Tc=25°C	$P_D$		40		W
Derate above 25°C			0.32		W/°C
Total Power Dissipation @ Ta=25°C	$P_D$		1.5		W
Derate above 25°C			0.012		W/°C

Operating And Storage Junction Temperature Range	$T_j, T_{stg}$	-65 to +150	°C
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### THERMAL RESISTANCE

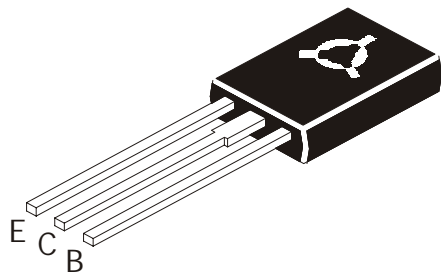
Junction to ambient	$R_{th(j-a)}$	83.3	°C/W
Junction to case	$R_{th(j-c)}$	3.12	°C/W

### ELECTRICAL CHARACTERISTICS (Ta=25°C unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Collector Emitter (sus) Voltage	$V_{CEO(sus)}$	$I_C=100mA, I_B=0$				
2N6034,2N6037			40			V
2N6035, 2N6038			60			V
2N6036, 2N6039			80			V
Collector Cut off Current	$I_{CEO}$	$V_{CE}=40V, I_B=0$			100	μA
2N6034,2N6037		$V_{CE}=60V, I_B=0$			100	μA
2N6035, 2N6038		$V_{CE}=80V, I_B=0$			100	μA
2N6036, 2N6039						

# SILICON POWER DARLINGTON TRANSISTORS

(PNP) 2N6034, 2N6035, 2N6036  
(NPN) 2N6037, 2N6038, 2N6039



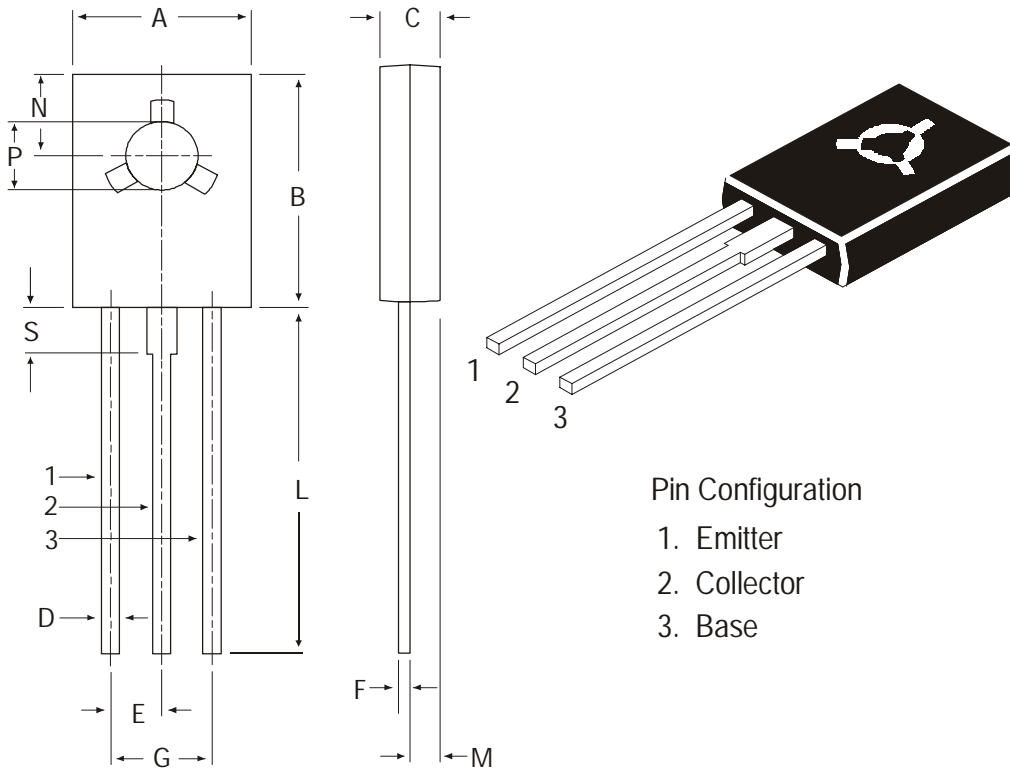
TO126  
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DESCRIPTION		SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
	2N6034,2N6037	I <sub>CEX</sub>	V <sub>CE</sub> =40V, V <sub>BE</sub> (off)=1.5V			100	μA
	2N6035, 2N6038		V <sub>CE</sub> =60V, V <sub>BE</sub> (off)=1.5V			100	μA
	2N6036, 2N6039		V <sub>CE</sub> =80V, V <sub>BE</sub> (off)=1.5V			100	μA
			T <sub>C</sub> =125 <sup>o</sup> C				
	2N6034,2N6037		V <sub>CE</sub> =40V, V <sub>BE</sub> (off)=1.5V			500	μA
	2N6035, 2N6038		V <sub>CE</sub> =60V, V <sub>BE</sub> (off)=1.5V			500	μA
	2N6036, 2N6039		V <sub>CE</sub> =80V, V <sub>BE</sub> (off)=1.5V			500	μA
Collector cut off Current							
	2N6034,2N6037	I <sub>CBO</sub>	V <sub>CB</sub> =40, I <sub>E</sub> =0			0.5	mA
	2N6035, 2N6038		V <sub>CB</sub> =60, I <sub>E</sub> =0			0.5	mA
	2N6036, 2N6039		V <sub>CB</sub> =80, I <sub>E</sub> =0			0.5	mA
Emitter Cut off Current		I <sub>EBO</sub>	V <sub>BE</sub> =5V, I <sub>C</sub> =0			2.0	mA
DC Current Gain		h <sub>FE</sub>	I <sub>C</sub> =0.5A, V <sub>CE</sub> =3V	500			
			I <sub>C</sub> =2A, V <sub>CE</sub> =3V	750		15000	
			I <sub>C</sub> =4A, V <sub>CE</sub> =3V	100			
Collector Emitter Saturation Voltage		V <sub>CE</sub> (Sat)	I <sub>C</sub> =2A, I <sub>B</sub> =8mA			2.0	V
			I <sub>C</sub> =4A, I <sub>B</sub> =40mA			3.0	V
Base Emitter Saturation Voltage		V <sub>BE</sub> (sat)	I <sub>C</sub> =4A, I <sub>B</sub> =40mA			4.0	V
Base Emitter on Voltage		V <sub>BE</sub> (on)	I <sub>C</sub> =2A, I <sub>B</sub> =V <sub>CE</sub> =3V			2.8	V
Dynamic Characteristics							
Small Signal Current Gain		I hfe I	I <sub>C</sub> =0.75A, V <sub>CE</sub> =10V f=1MHz	25			
Output Capacitance		C <sub>ob</sub>	V <sub>CB</sub> =10V, I <sub>E</sub> =0,				
	PNP		f=0.1MHz			200	pF
	NPN					100	pF

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**TO126**  
**Plastic Package**

**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 diminsions 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 Bulk	500 pcs/polybag	340 gm/500 pcs	3" x 7.5" x 7.5"	2K	17" x 15" x 13.5"	32K	31 kgs
TO-126 Tube	50 pcs/tube	73 gm/50 pcs	3" x 3.7" x 21.5"	1K	19" x 19" x 19"	10K	15 kgs

**TO126****Plastic Package****Disclaimer**

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