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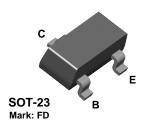
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BCV26



PNP Darlington Transistor

This device is designed for applications requiring extremely high current gain at currents to 800 mA. Sourced from Process 61.

Absolute Maximum Ratings* TA = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
V_{CEO}	Collector-Emitter Voltage	30	V
V _{CBO}	Collector-Base Voltage	40	V
V _{EBO}	Emitter-Base Voltage	10	V
I _C	Collector Current - Continuous	1.2	А
T _J , T _{stg}	Operating and Storage Junction Temperature Range	-55 to +150	°C

^{*}These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

- 1) These ratings are based on a maximum junction temperature of 150 degrees C.
- 2) These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

 3) All voltages (V) and currents (A) are negative polarity for PNP transistors.

Thermal Characteristics TA = 25°C unless otherwise noted

Symbol	Characteristic	Max	Units	
		*BCV26		
P _D	Total Device Dissipation	350	mW	
	Derate above 25°C	2.8	mW/°C	
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	357	°C/W	

^{*}Device mounted on FR-4 PCB 40 mm X 40 mm X 1.5 mm.

PNP Darlington Transistor

(continued)

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TA = 25°C unless otherwise noted

Symbol	Parameter	Test Conditions	Min	Тур	Max	Units
OFF CHA	RACTERISTICS					
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = 10 \text{ mA}, I_B = 0$	30			V
V _{(BR)CBO}	Collector-Base Breakdown Voltage	$I_C = 10 \mu\text{A}, I_E = 0$	40			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E = 100 \text{ nA}, I_C = 0$	10			V
I _{CBO}	Collector-Cutoff Current	$V_{CB} = 30 \text{ V}, I_{E} = 0$			0.1	μΑ
I _{EBO}	Emitter-Cutoff Current	$V_{EB} = 10 \text{ V}, I_{C} = 0$			0.1	μΑ
ONCHAR	ACTERISTICS					
		1. 40 4	4.000		1	
h _{FE}	DC Current Gain	$I_C = 1.0 \text{ mA}, V_{CE} = 5.0 \text{ V}$	4,000			

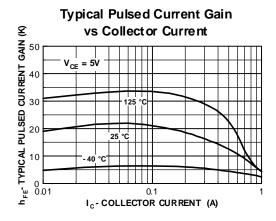
h _{FE}	DC Current Gain	$I_C = 1.0 \text{ mA}, V_{CE} = 5.0 \text{ V}$	4,000		
		$I_C = 10 \text{ mA}, V_{CE} = 5.0 \text{ V}$	10,000		
		$I_C = 100 \text{ mA}, V_{CE} = 5.0 \text{ V}$	20,000		
V _{CE(sat)}	Collector-Emitter Saturation Voltage	$I_C = 100 \text{ mA}, I_B = 0.1 \text{ mA}$		1.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	$I_C = 100 \text{ mA}, I_B = 0.1 \text{ mA}$		1.5	V

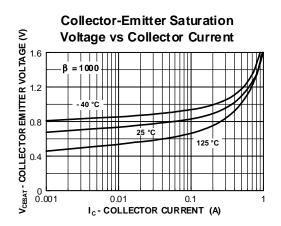
SMALL SIGNAL CHARACTERISTICS

f _T	Current Gain - Bandwidth Product	$I_C = 30 \text{ mA}, V_{CE} = 5.0 \text{ V},$	220	MHz
		f = 100 MHz		
C _C	Collector Capacitance	$V_{CB} = 30 \text{ V}, I_E = 0, f = 1.0 \text{ MHz}$	3.5	pF

NOTE: All voltages (V) and currents (A) are negative polarity for PNP transistors.

Typical Characteristics



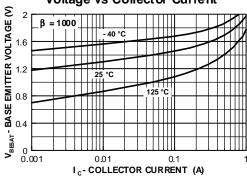


PNP Darlington Transistor

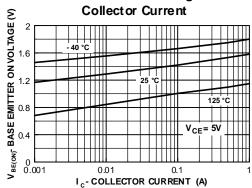
(continued)

Typical Characteristics (continued)

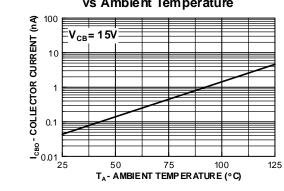




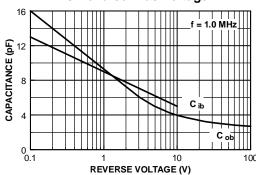
Base Emitter ON Voltage vs



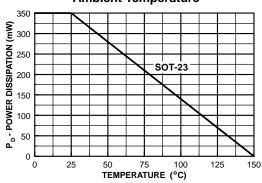
Collector-Cutoff Current vs Ambient Temperature

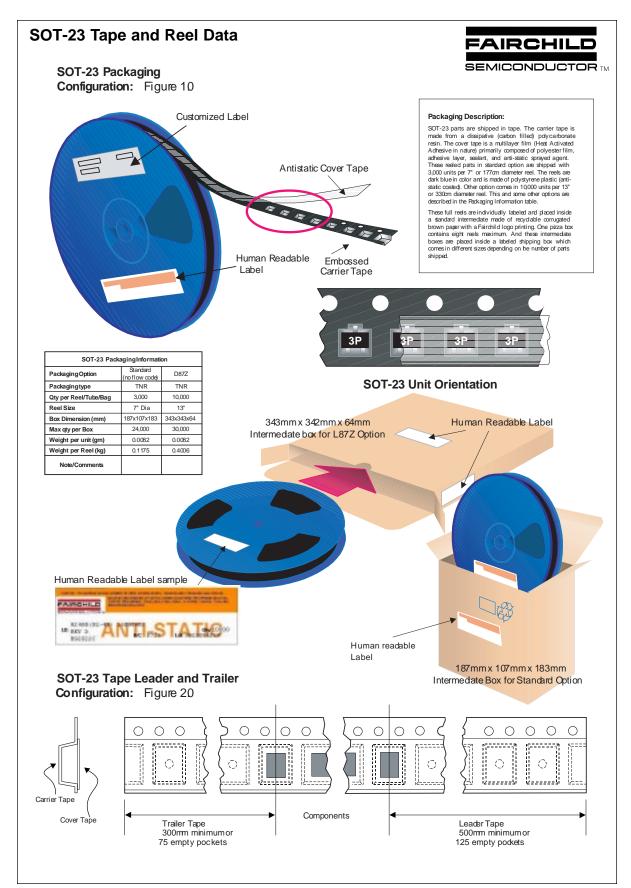


Input and Output Capacitance vs Reverse Bias Voltage



Power Dissipation vs Ambient Temperature

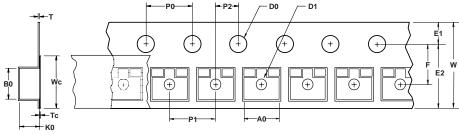




SOT-23 Tape and Reel Data, continued

SOT-23 Embossed Carrier Tape

Configuration: Figure 3.0



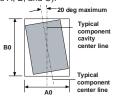
User Direction of Feed

Dimensions are in millimeter														
Pkg type	Α0	В0	w	D0	D1	E1	E2	F	P1	P0	K0	Т	Wc	Тс
SOT-23 (8mm)	3.15 +/-0.10	2.77 +/-0.10	8.0 +/-0.3	1.55 +/-0.05	1.125 +/-0.125	1.75 +/-0.10	6.25 min	3.50 +/-0.05	4.0 +/-0.1	4.0 +/-0.1	1.30 +/-0.10	0.228 +/-0.013	5.2 +/-0.3	0.06 +/-0.02

Notes: A0, B0, and K0 dimensions are determined with respect to the EIA/Jedec RS-481 rotational and lateral movement requirements (see sketches A, B, and C).



Sketch A (Side or Front Sectional View)
Component Rotation

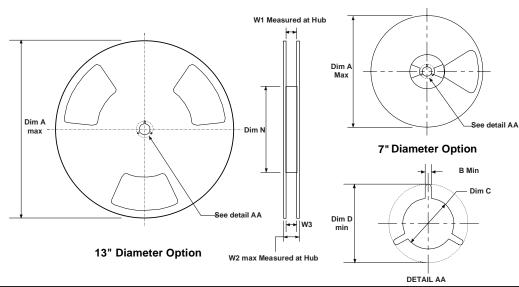


Sketch B (Top View)
Component Rotation



Sketch C (Top View)
Component lateral movement

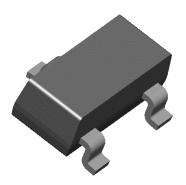
SOT-23 Reel Configuration: Figure 4.0

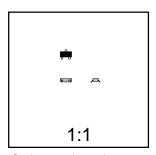


	Dimensions are in inches and millimeters								
Tape Size	Reel Option	Dim A	Dim B	Dim C	Dim D	Dim N	Dim W1	Dim W2	Dim W3 (LSL-USL)
8mm	7" Dia	7.00 177.8	0.059 1.5	512 +0.020/-0.008 13 +0.5/-0.2	0.795 20.2	2.165 55	0.331 +0.059/-0.000 8.4 +1.5/0	0.567 14.4	0.311 - 0.429 7.9 - 10.9
8mm	13" Dia	13.00 330	0.059 1.5	512 +0.020/-0.008 13 +0.5/-0.2	0.795 20.2	4.00 100	0.331 +0.059/-0.000 8.4 +1.5/0	0.567 14.4	0.311 - 0.429 7.9 - 10.9



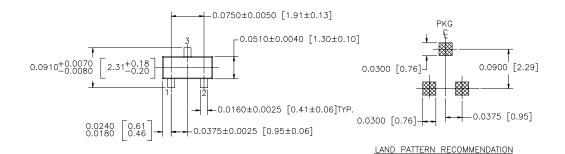
SOT-23 (FS PKG Code 49)

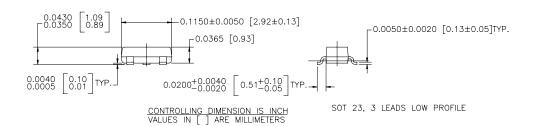




Scale 1:1 on letter size paper Dimensions shown below are in:

inches [millimeters]
Part Weight per unit (gram): 0.0082





NOTE: UNLESS OTHERWISE SPECIFIED

- 1. STANDARD LEAD FINISH 150 MICROINCHES / 3.81 MICROMETERS MINIMUM TIN / LEAD (SOLDER) ON ALLOY 42
- 2. REFERENCE JEDEC REGISTRATION TO-236, VARIATION AB, ISSUE G, DATED JUL 1993

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