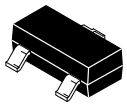
PNP Darlington Transistor

BCV26



SOT−23
CASE 318

Description

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

ABSOLUTE MAXIMUM RATINGS

(T_A = 25°C unless otherwise noted.) (Notes 1, 2, 3)

Symbol	Parameter	Value	Unit
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	A
T_J, T_{STG}	Operating and Storage Junction Temperature Range	55 to +150	°C

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

1. These ratings are based on a maximum junction temperature of 150°C.
2. These are steady state limits. **onsemi** 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.

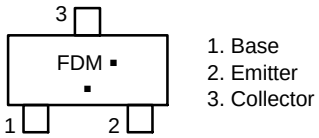
THERMAL CHARACTERISTICS

(T_A = 25°C unless otherwise noted.) (Note 4)

Symbol	Parameter	Max	Unit
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

4. Device mounted on FR 4 PCB 40 mm x 40 mm x 1.5 mm.

MARKING DIAGRAM



FD = Specific Device Code
M = Date Code
▪ = Pb Free Package

(Note: Microdot may be in either location)

ORDERING INFORMATION

Device	Package	Shipping
BCV26	SOT 23 (Pb Free, Halide Free)	3,000 / Tape & Reel

†For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification Brochure, BRD8011/D.

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted.)

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
OFF CHARACTERISTICS						
$V_{(BR)CEO}$	Collector Emitter Breakdown Voltage	I_C = 10 mA, I_B = 0	30			V
$V_{(BR)CBO}$	Collector Base Breakdown Voltage	I_C = 10 μA, I_E = 0	40			V
$V_{(BR)EBO}$	Emitter Base Breakdown Voltage	I_E = 100 nA, I_C = 0	10			V

V

71 refBT8 0 0 8 594 .083 668.18209 Tm ODC Off Gain Current174 648.7943 V2844 30 V 725 ref03 6 8 9 ET 44 887 1651 335 59 0 71 0 reW(B)Tj 6816 942 652 7 Tc 6 0 T 61 0 T 6 0 5 8 0 (1 T 6 4.63 8 0

100 nA, I

TYPICAL CHARACTERISTICS

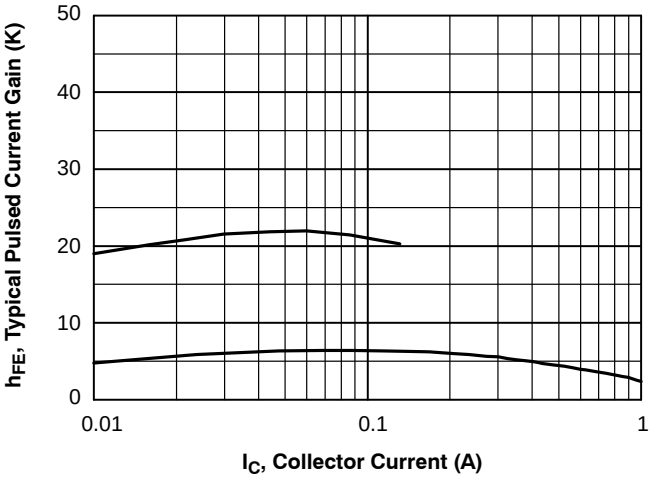


Figure 1. Typical Pulsed Current Gain vs. Collector Current

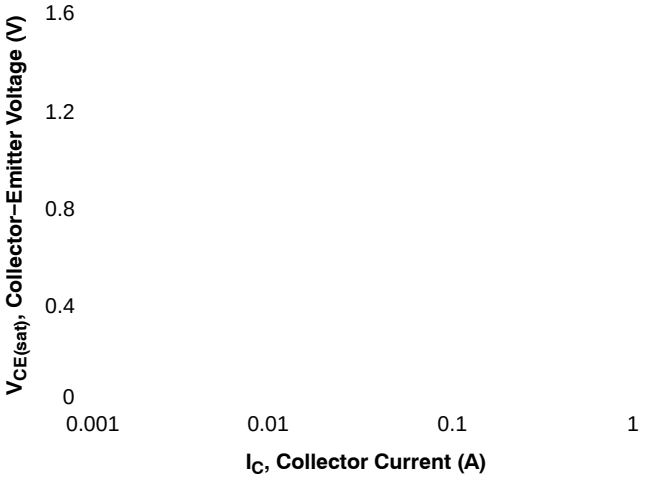


Figure 2. Collector−Emitter Saturation Voltage vs. Collector Current

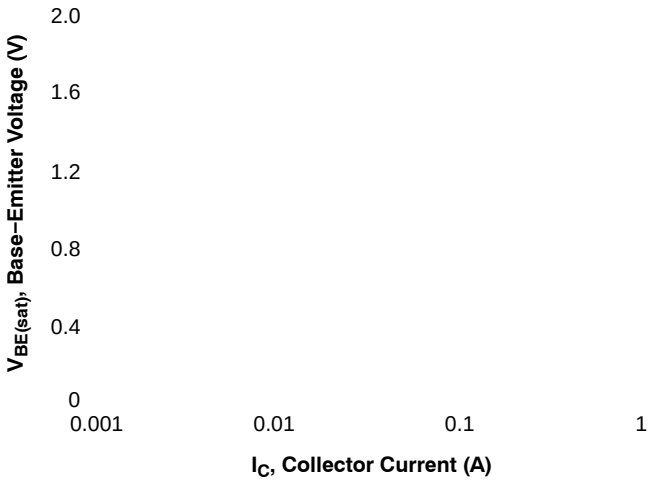


Figure 3. Base−Emitter Saturation Voltage vs. Collector Current

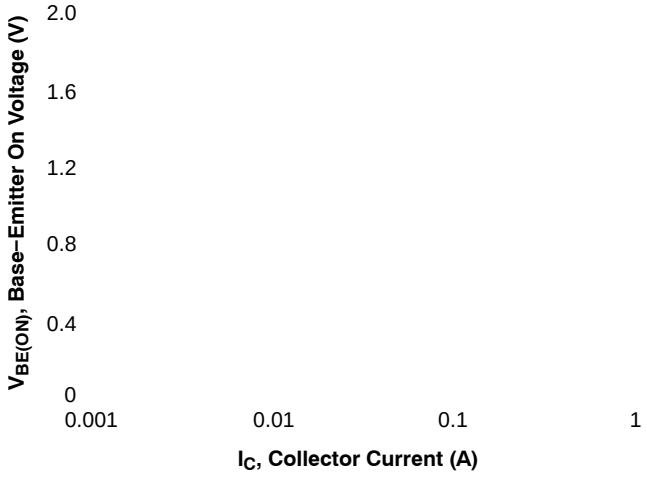


Figure 4. Base Emitter On Voltage vs. Collector Current

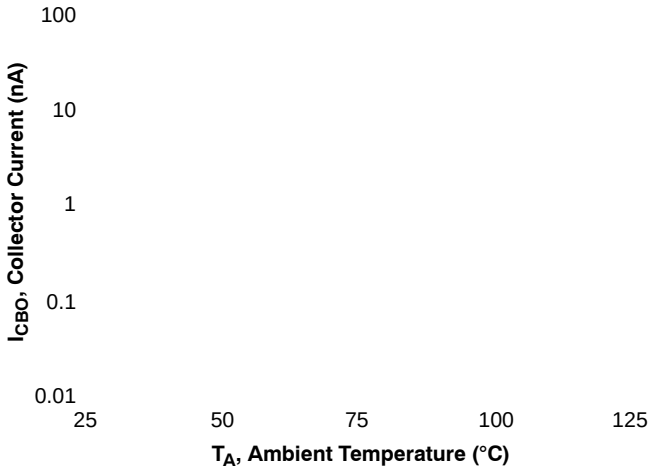


Figure 5. Collector Cut−Off Current vs. Ambient Temperature

Figure 6. Input and Output Capacitance vs. Reverse Bias Voltage

TYPICAL CHARACTERISTICS (Continued)