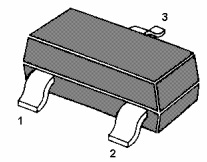
BCV26 / BCV46

PNP Darlington Transistors

for preamplifier input applications



1. Base 2. Emitter 3. Collector
SOT-23 Plastic Package

Absolute Maximum Ratings (T_a = 25 °C)

Parameter		Symbol	Value	Unit
Collector Base Voltage	BCV26 BCV46	$-V_{CBO}$	40 80	V
Collector Emitter Voltage	BCV26 BCV46	$-V_{CEO}$	30 60	V
Emitter Base Voltage		$-V_{EBO}$	10	V
Collector Current		$-I_C$	500	mA
Peak Collector Current		$-I_{CM}$	800	mA
Base Current		$-I_B$	100	mA
Total Power Dissipation		P_{tot}	200	mW
Junction Temperature		T_j	150	°C
Storage Temperature Range		T_S	- 65 to + 150	°C

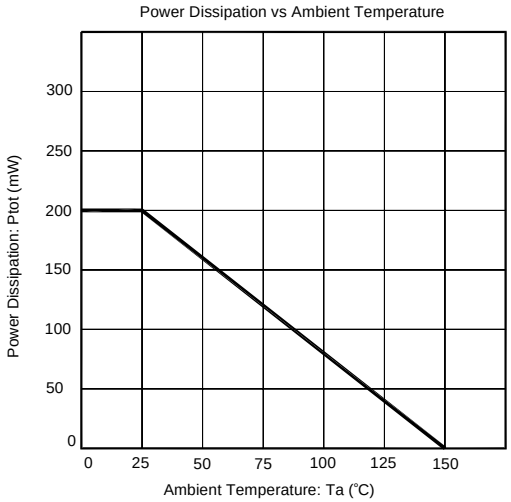
Characteristics at T_a = 25 °C

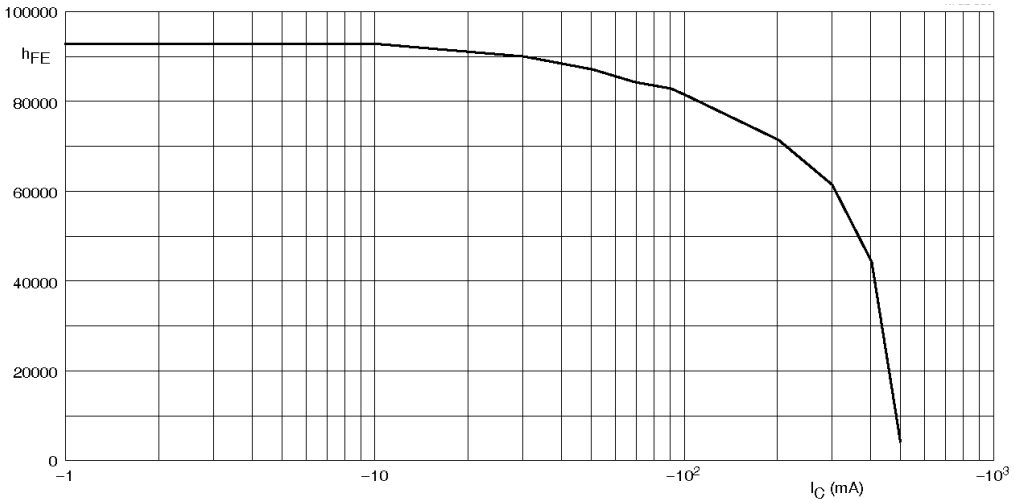
Parameter		Symbol	Min.	Typ.	Max.	Unit
DC Current Gain						
at $-V_{CE}$ = 5 V, $-I_C$ = 1 mA	BCV26	h_{FE}	4000	-	-	-
	BCV46	h_{FE}	2000	-	-	-
at $-V_{CE}$ = 5 V, $-I_C$ = 10 mA	BCV26	h_{FE}	10000	-	-	-
	BCV46	h_{FE}	4000	-	-	-
at $-V_{CE}$ = 5 V, $-I_C$ = 100 mA	BCV26	h_{FE}	20000	-	-	-
	BCV46	h_{FE}	10000	-	-	-
Collector Cutoff Current						
at $-V_{CB}$ = 30 V	BCV26	$-I_{CBO}$	-	-	100	nA
at $-V_{CB}$ = 60 V	BCV46		-	-	100	
Emitter Cutoff Current at $-V_{EB}$ = 10 V		$-I_{EBO}$	-	-	100	nA
Collector Base Breakdown Voltage	BCV26	$-V_{(BR)CBO}$	40	-	-	V
at $-I_C$ = 100 µA	BCV46		80	-	-	
Collector Emitter Breakdown Voltage	BCV26	$-V_{(BR)CEO}$	30	-	-	V
at $-I_C$ = 10 mA	BCV46		60			
Emitter Base Breakdown Voltage at $-I_E$ = 10 µA		$-V_{(BR)EBO}$	10	-	-	V
Collector Emitter Saturation Voltage at $-I_C$ = 100 mA, $-I_B$ = 0.1 mA		$-V_{CE(sat)}$	-	-	1	V
Base Emitter Saturation Voltage at $-I_C$ = 100 mA, $-I_B$ = 0.1 mA		$-V_{BE(sat)}$	-	-	1.5	V
Base Emitter On-state Voltage at $-I_C$ = 10 mA, $-V_{CE}$ = 5 V		$-V_{BE(on)}$	-	-	1.4	V
Transition Frequency at $-V_{CE}$ = 5 V, $-I_C$ = 30 mA, f = 100 MHz		f_T	-	220	-	MHz

SEMTECH ELECTRONICS LTD.
(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)

ISO/TS 16949 : 2002 Certificate No. 05103
ISO 14001:2004 Certificate No. 7116
ISO 9001:2000 Certificate No. 0506098

Dated : 18/08/2007





V_{CE} = −2 V.

DC current gain; typical values.