

# SOT23 PNP SILICON PLANAR DARLINGTON TRANSISTORS

## BCV26 BCV46

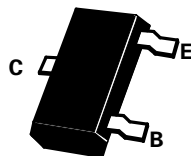
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### FEATURES

- \* Low saturation voltage

COMPLEMENTARY TYPE – BCV26 - BCV27  
BCV46 - BCV47

PARTMARKING DETAILS – BCV26 - ZFD  
BCV46 - ZFE



### ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	BCV26	BCV46	UNIT
Collector-Base Voltage	$V_{CBO}$	-40	-80	V
Collector-Emitter Voltage	$V_{CEO}$	-30	-60	V
Emitter-Base Voltage	$V_{EBO}$	-10		V
Peak Pulse Current	$I_{CM}$	-800		mA
Continuous Collector Current	$I_C$	-500		mA
Base Current	$I_B$	-100		mA
Power Dissipation at $T_{amb}=25^\circ\text{C}$	$P_{tot}$	330		mW
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +150		$^\circ\text{C}$

### ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^\circ\text{C}$ unless otherwise stated).

PARAMETER	SYMBOL	BCV26		BCV46		UNIT	CONDITIONS.
		MIN.	MAX.	MIN.	MAX.		
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-40		-80		V	$I_C=100\mu\text{A}$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-30		-60		V	$I_C=10\text{mA}$ *
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-10		-10		V	$I_E=10\mu\text{A}$
Collector Cut-Off Current	$I_{CBO}$		-100		-100	nA nA $\mu\text{A}$ $\mu\text{A}$	$V_{CB} = -30\text{V}$ $V_{CB} = -60\text{V}$ $V_{CB} = -30\text{V}, T_{amb} = 150^\circ\text{C}$ $V_{CB} = -60\text{V}, T_{amb} = 150^\circ\text{C}$
Emitter Base Cut-Off Current	$I_{EBO}$		-100		-100	nA	$V_{EB} = -4\text{V}$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		-1.0		-1.0	V	$I_C = 100\text{mA}, I_B = 0.1\text{mA}$ *
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		-1.5		-1.5	V	$I_C = 100\text{mA}, I_B = 0.1\text{mA}$ *
Static Forward Current Transfer Ratio	$h_{FE}$	4K 10K 20K 4K		2K 4K 10K 2K			$I_C = 100\mu\text{A}, V_{CE} = -1\text{V} \dagger$ $I_C = 10\text{mA}, V_{CE} = -5\text{V}^*$ $I_C = 100\text{mA}, V_{CE} = -5\text{V}^*$ $I_C = 500\text{mA}, V_{CE} = -5\text{V}^*$
Transition Frequency	$f_T$	200 Typical		200 Typical		MHz	$I_C = 50\text{mA}, V_{CE} = -5\text{V}$ $f = 20\text{MHz}$
Output Capacitance	$C_{obo}$	4.5 Typical		4.5 Typical		pF	$V_{CB} = -10\text{V}, f = 1\text{MHz}$

\*Measured under pulsed conditions. Pulse width=300 $\mu\text{s}$ . Duty cycle  $\leq 2\%$

Spice parameter data is available upon request for these devices † Periodic Sample Test Only.