

# SOT89 PNP SILICON DARLINGTON TRANSISTOR

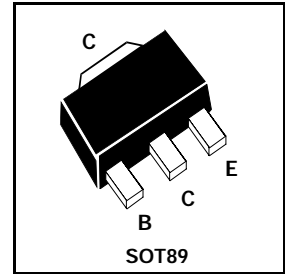
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## BCV28

COMPLEMENTARY TYPE – BCV29

PARTMARKING DETAIL – ED



### ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	$V_{CBO}$	-40	V
Collector-Emitter Voltage	$V_{CEO}$	-30	V
Emitter-Base Voltage	$V_{EBO}$	-10	V
Peak Pulse Current	$I_{CM}$	-800	mA
Continuous Collector Current	$I_C$	-500	mA
Power Dissipation at $T_{amb}=25^\circ\text{C}$	$P_{tot}$	1	W
Operating and Storage Temperature Range	$T_j; T_{stg}$	-65 to +150	$^\circ\text{C}$

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

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-40			V	$I_C=100\mu\text{A}$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-30			V	$I_C=10\text{mA}^*$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-10			V	$I_E=10\mu\text{A}$
Collector Cut-Off Current	$I_{CBO}$			-100 -10	nA $\mu\text{A}$	$V_{CB}=-30\text{V}$ $V_{CB}=-30\text{V}, T_{amb}=150^\circ\text{C}$
Emitter Cut-Off Current	$I_{EBO}$			-100	nA	$V_{EB}=-4\text{V}$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			-1	V	$I_C=-100\text{mA}, I_B=-0.1\text{mA}^*$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$			-1.5	V	$I_C=-100\text{mA}, I_B=-0.1\text{mA}^*$
Static Forward Current Transfer Ratio	$h_{FE}$	4000 10000 20000 4000				$I_C=-100\mu\text{A}, V_{CE}=-1\text{V}\dagger$ $I_C=-10\text{mA}, V_{CE}=-5\text{V}^*$ $I_C=-100\text{mA}, V_{CE}=-5\text{V}^*$ $I_C=-0.5\text{mA}, V_{CE}=-5\text{V}^*$
Transition Frequency	$f_T$		200		MHz	$I_C=-50\text{mA}, V_{CE}=-5\text{V}$ $f = 20\text{MHz}$
Output Capacitance	$C_{obo}$		4.5		pF	$V_{CB}=-10\text{V}, f=1\text{MHz}$

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

$\dagger$  Periodic Sample Test Only.