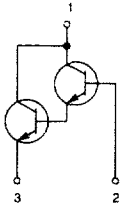
NPN Silicon Planar Darlington Transistor
for general NF applications

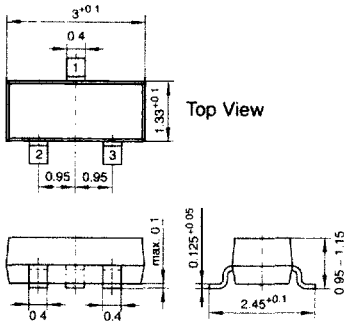
As complementary type, the PNP transistor BCV26 is recommended.

Features
- high collector current
- high current gain

Pin configuration
1 = Collector, 2 = Base, 3 = Emitter



Marking
FF



SOT-23 Plastic Package
Weight approx. 0.008 g
Dimensions in mm

Absolute Maximum Ratings

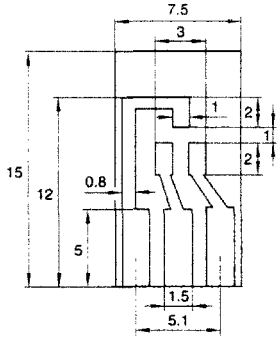
	Symbol	Value	Unit
Collector-Emitter Voltage	V_{CEO}	30	V
Collector-Base Voltage	V_{CBO}	40	V
Emitter-Base Voltage	V_{EBO}	10	V
Collector Current	I_C	300	mA
Peak Collector Current	I_{CM}	800	mA
Base Current	I_B	100	mA
Power Dissipation at T_{SB} = 50 °C	P_{tot}	300[1)]	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_S	−65 to +150	°C

[1)] Device on fiberglass substrate, see layout

Characteristics at T_{amb} = 25 °C

	Symbol	Min.	Typ.	Max.	Unit
Collector-Base Cutoff Current at V_{CBO} = 30 V	I_{CBO}	–	–	0.1	µA
Emitter-Base Cutoff Current at V_{EB} = 10 V	I_{EBO}	–	–	0.1	µA
Collector-Emitter Breakdown Voltage at I_C = 10 mA	$V_{(BR)CEO}$	30	–	–	V
Collector-Base Breakdown Voltage at I_C = 10 µA	$V_{(BR)CBO}$	40	–	–	V
Emitter-Base Breakdown Voltage at I_E = 100 nA	$V_{(BR)EBO}$	10	–	–	V
DC Current Gain at V_{CE} = 5 V, I_C = 1 mA at V_{CE} = 5 V, I_C = 10 mA at V_{CE} = 5 V, I_C = 100 mA	 h_{FE} h_{FE} h_{FE}	 4000 10000 20000	 – – –	 – – –	 – – –
Collector-Emitter Saturation Voltage at I_C = 100 mA, I_B = 0.1 mA	V_{CEsat}	–	–	1.0	V
Base-Emitter Saturation Voltage at I_C = 100 mA, I_B = 0.1 mA	V_{BEsat}	–	–	1.5	V
Gain-Bandwidth Product at V_{CE} = 5 V, I_C = 30 mA, f = 100 MHz	f_T	–	220	–	MHz
Collector-Base Capacitance at V_{CB} = 30 V, I_E = 0, f = 1 MHz	C_{CBO}	–	3.5	–	pF
Thermal Resistance Junction to Ambient Air	R_{thA}	–	–	430[1]	K/W

[1] Device on fiberglass substrate, see layout below



Layout for R_{thA} test
Thickness: Fiberglass 1.5 mm
Copper leads 0.3 mm