



SEMELAB

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BUP 40

NEW PRODUCT

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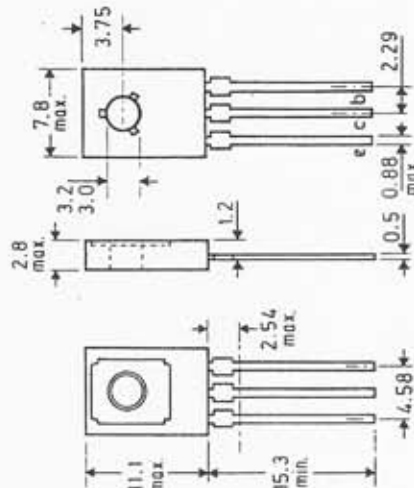
SILICON PNP EPITAXIAL PLANAR

FEATURES

- VERY LOW $V_{CE(sat)}$
- HIGH GAIN AT HIGH CURRENT
- VERY FAST SWITCHING
- NPN COMPLEMENT BUP 41

MECHANICAL DATA

Dimensions in mm

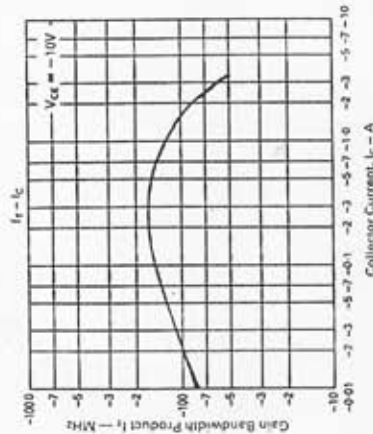
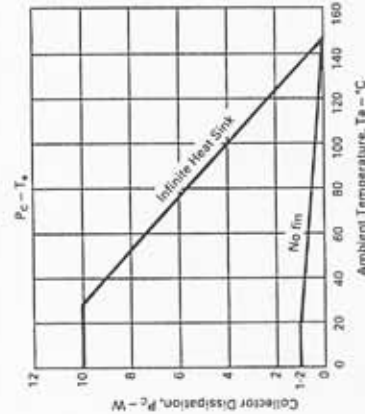
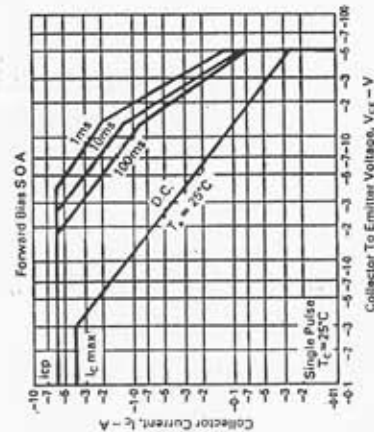
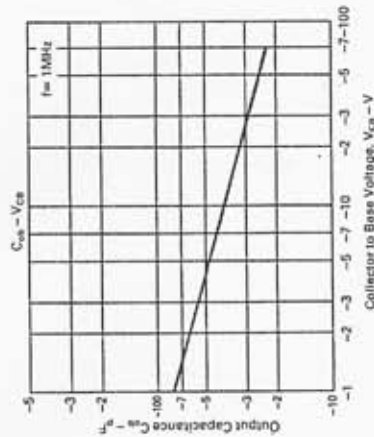


TO 126

ABSOLUTE MAXIMUM RATINGS

V_{CE0}	Collector-base voltage ($I_E = 0$)	-60V
V_{CE0}	Collector-emitter voltage ($I_E = 0$)	-50V
V_{EB0}	Emitter-base voltage ($I_C = 0$)	-6V
I_C	Collector current	-6A
P_{tot}	Total power dissipation at $T_{case} \leq 25^\circ C$	-10W
T_{stg}	Storage temperature	-55 to $150^\circ C$
T_J	Junction temperature	$150^\circ C$

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SEMELAB LTD., COVENTRY ROAD, LUTTERWORTH, LEICS. LE17 4JB

ELECTRICAL CHARACTERISTICS ($T_{CASE} = 25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Test Conditions	Min. Typ. Max	Unit
I_{CBO} Collector cutoff current ($I_E = 0$)	$V_{CB} = -40\text{V}$	-1	μA
I_{EBO} Emitter cutoff current ($I_C = 0$)	$V_{EB} = -4\text{V}$	-1	μA
$V_{CE(sat)}$ * Collector-emitter saturation voltage	$I_C = -3\text{A}$ $I_B = -0.1\text{A}$	-1.1	V
$V_{BE(sat)}$ * Base emitter voltage	$I_C = -3\text{A}$ $I_B = -0.1\text{A}$	-1.4	V
h_{FE1} * h_{FE2} * DC Current gain	$I_C = -1\text{A}$ $I_E = -5\text{A}$ $V_{CE} = -2\text{V}$ $V_{CE} = -5\text{V}$	100 200 500 40	—
f_T Transition frequency	$I_C = -1\text{A}$ $V_{CE} = -5\text{V}$	150	MHz
C_{300} Collector base capacitance	$V_{CB} = -10\text{V}$ $f = 1\text{MHz}$	40	pf
I_{SB} Second Breakdown Collector current	$V_{CE} = -18\text{V}$ $t = 1\text{ m sec}$	-1	A

* Pulsed: pulse duration = $300\mu\text{s}$, duty cycle = 1.5%