



# BSS 18 2N5323

## THERMAL DATA

$R_{th\ j-c}$	Thermal resistance junction-case	max	17.5	°C/W
$R_{th\ j-a}$	Thermal resistance junction-ambient	max	175	°C/W

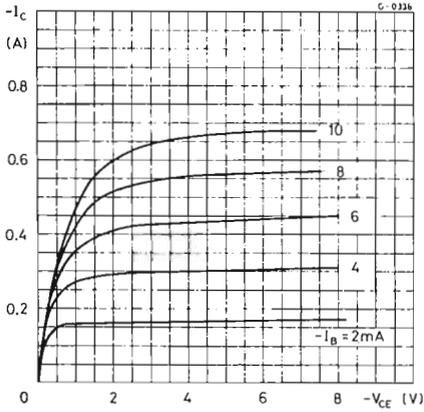
## ELECTRICAL CHARACTERISTICS ( $T_c = 25\text{ °C}$ unless otherwise specified)

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
$I_{CBO}$ Collector cutoff current ( $I_E = 0$ )	$V_{CB} = -60\text{ V}$			-5	$\mu\text{A}$
$I_{EBO}$ Emitter cutoff current ( $I_C = 0$ )	$V_{EB} = -4\text{ V}$			-0.5	$\mu\text{A}$
$V_{EBO}$ Emitter-base voltage ( $I_C = 0$ )	$I_E = -0.1\text{ mA}$	-5			V
$V_{CEO(sus)}$ Collector-emitter voltage ( $I_B = 0$ )	$I_C = -100\text{ mA}$	-50			V
$V_{CE(sat)}$ Collector-emitter saturation voltage	$I_C = -500\text{ mA}$ $I_B = -50\text{ mA}$			-1.2	V
$V_{CEV}$ Collector-emitter voltage	$I_C = -0.1\text{ mA}$ $V_{BE} = 1.5\text{ V}$	-75			V
$V_{BE}$ Base-emitter voltage	$I_C = -500\text{ mA}$ $V_{CE} = -4\text{ V}$			-1.4	V
$h_{FE}$ DC current gain *	$I_C = -500\text{ mA}$ $V_{CE} = -4\text{ V}$	40		250	—
$f_T$ Transition frequency	$I_C = -50\text{ mA}$ $V_{CE} = -4\text{ V}$	50			MHz
$t_{on}$ Turn on time	$I_C = -500\text{ mA}$ $V_{CE} = -30\text{ V}$ $I_B = -50\text{ mA}$			100	ns
$t_{off}$ Turn off time	$I_C = -500\text{ mA}$ $V_{CE} = -30\text{ V}$ $I_B = -50\text{ mA}$			1000	ns
$I_{S/B}^{**}$ Second breakdown collector current	$V_{CE} = -35\text{ V}$	-285			mA

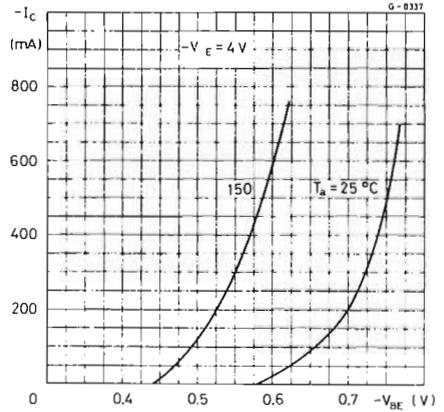
\* Pulse conditions

\*\* 0.4 s non repetitive pulse

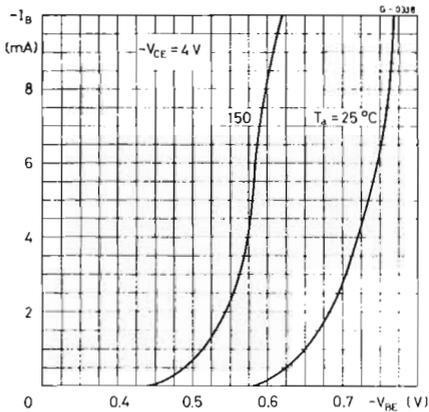
Typical output characteristics



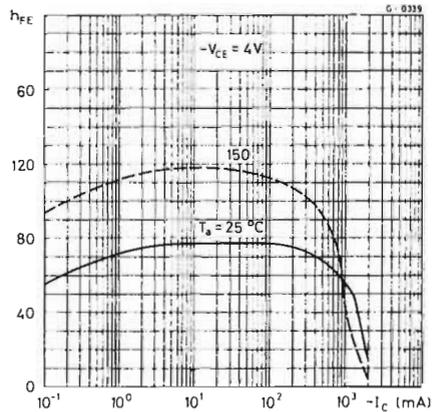
Typical DC transconductance



Typical input characteristics

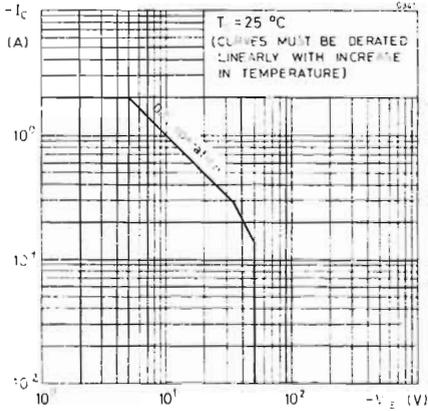


Typical DC current gain



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Maximum operating areas



## TEST CIRCUIT

### Switching times test circuit

