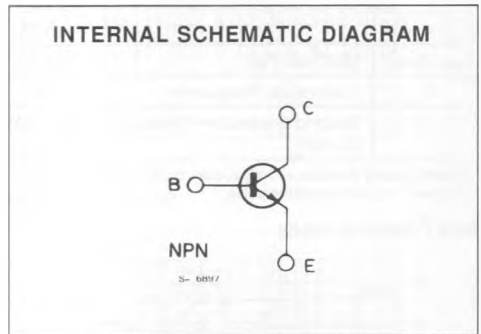
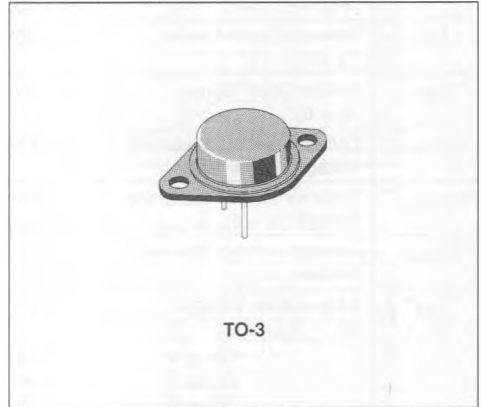


POWER LINEAR AND SWITCHING APPLICATIONS
DESCRIPTION

The 2N3055 is a silicon epitaxial-base NPN transistor in Jedec TO-3 metal case. It is intended for power switching circuits, series and shunt regulators, output stages and high fidelity amplifiers.


ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-base Voltage ($I_E = 0$)	100	V
V_{CER}	Collector-emitter Voltage ($R_{BE} = 100 \Omega$)	70	V
V_{CEO}	Collector-emitter Voltage ($I_B = 0$)	60	V
V_{EBO}	Emitter-base Voltage ($I_C = 0$)	7	V
I_C	Collector Current	15	A
I_B	Base Current	7	A
P_{tot}	Total Power Dissipation at $T_{case} \leq 25^\circ C$	115	W
T_{stg}	Storage Temperature	- 65 to 200	$^\circ C$
T_j	Junction Temperature	200	$^\circ C$

THERMAL DATA

$R_{th(j-case)}$	Thermal Resistance Junction-case	Max	1.5	°C/W
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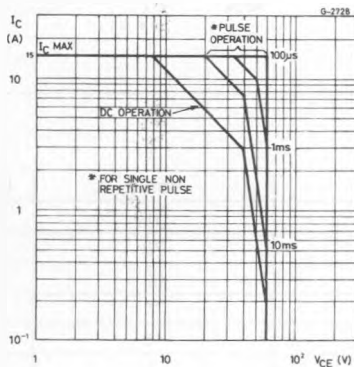
ELECTRICAL CHARACTERISTICS ($T_{case} = 25^{\circ}C$ unless otherwise specified)

Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
I_{CEV}	Collector Cutoff Current ($V_{BE} = -1.5V$)	$V_{CE} = 100V$ $V_{CE} = 100V$	$T_{case} = 150^{\circ}C$			1 5	mA mA
I_{CEO}	Collector Cutoff Current ($I_B = 0$)	$V_{CE} = 30V$				0.7	mA
I_{EBO}	Emitter Cutoff Current ($I_C = 0$)	$V_{EB} = 7V$				5	mA
$V_{CER(sus)^*}$	Collector-emitter Sustaining Voltage ($R_{BE} = 100\Omega$)	$I_C = 200mA$		70			V
$V_{CEO(sus)^*}$	Collector-emitter Sustaining Voltage ($I_B = 0$)	$I_C = 200mA$		60			V
$V_{CE(sat)^*}$	Collector-emitter Saturation Voltage	$I_C = 4A$ $I_C = 10A$	$I_B = 400mA$ $I_B = 3.3A$			1 3	V V
V_{BE}^*	Base-emitter Voltage	$I_C = 4A$	$V_{CE} = 4V$			1.5	V
h_{FE}^*	DC Current Gain	Group 4 Group 5 Group 6 Group 7	$I_C = 0.5A$ $I_C = 0.5A$ $I_C = 0.5A$ $I_C = 0.5A$ $I_C = 4A$ $I_C = 10A$	$V_{CE} = 4V$ $V_{CE} = 4V$ $V_{CE} = 4V$ $V_{CE} = 4V$ $V_{CE} = 4V$ $V_{CE} = 4V$	20 35 60 120 20 5	50 75 145 250 70	
h_{FE1}/h_{FE2}^*	Matched Pair	$I_C = 0.5A$	$V_{CE} = 4V$			1.6	
f_T	Transition Frequency	$I_C = 1A$	$V_{CE} = 4V$	2.5			MHz
$I_{s/b}^*$	Second Breakdown Collector Current	$V_{CE} = 40V$		2.87			A

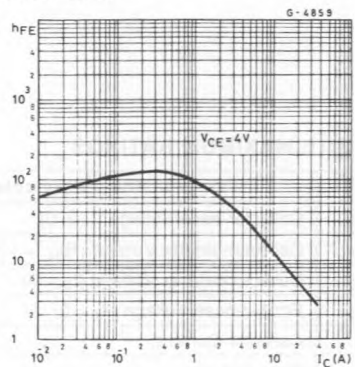
* Pulsed : pulse duration = 300µs, duty cycle = 1.5%.

** Pulsed : 1s, non repetitive pulse.

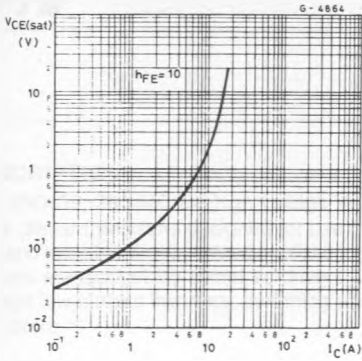
Safe Operating Areas.



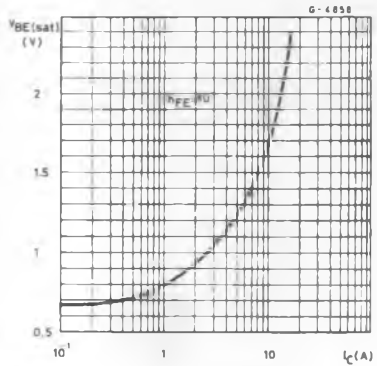
DC Current Gain.



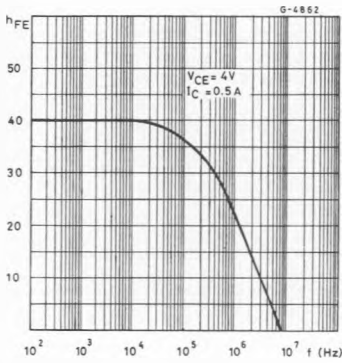
Collector-emitter Saturation Voltage.



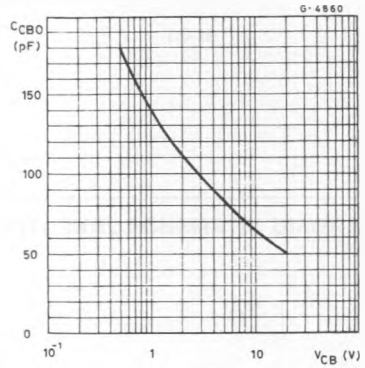
Base-emitter Saturation Voltage.



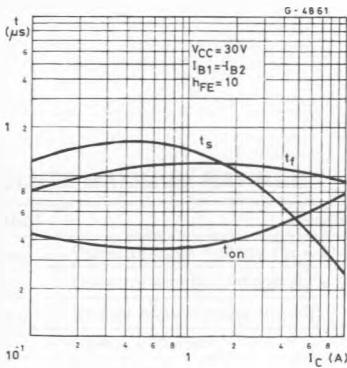
Small Signal Current Gain.



Collector-base Capacitance.



Saturated Switching Characteristics.



Power Rating Chart.

