



**PNP TIP2955**  
**NPN TIP3055**

## SILICON POWER TRANSISTORS

The TIP3055 is a NPN epitaxial-base transistor in TO3PN package. It is intended for power switching circuits, series and shunt regulators, output stage and hi-fi amplifiers.

The complementary is the TIP2955

For PNP types Voltage and Current are Negative.

Compliance to RoHS.

### ABSOLUTE MAXIMUM RATINGS

Symbol	Ratings	Value	Unit
$V_{CBO}$	Collector-Base Voltage	100	V
$V_{CEO}$	Collector-Emitter Voltage	60	V
$V_{EBO}$	Emitter-Base Voltage	7	V
$I_C$	Collector Current	15	A
$I_B$	Base Current	7	A
$P_T$	Total Dissipation @ $T_{mb} < 25^\circ$	90	W
$t_J$	Junction Temperature	150	°C
$t_s$	Storage Temperature range	-65 to +150	

### THERMAL CHARACTERISTICS

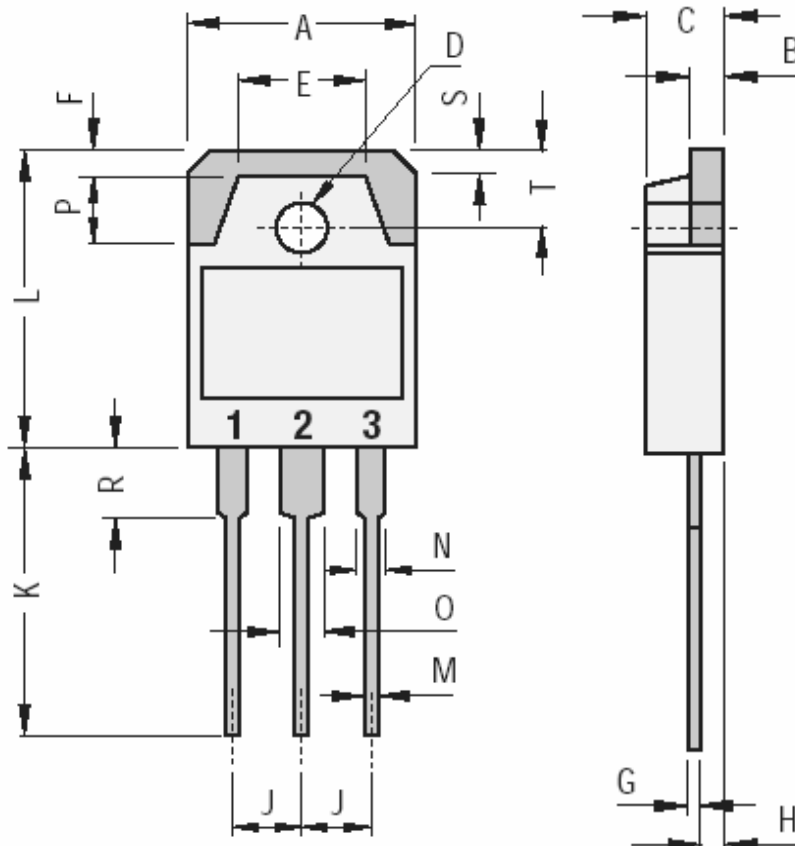
Symbol	Ratings	Value	Unit
$R_{thJC}$	From Junction to Case Thermal Resistance	1.39	°C/W

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**ELECTRICAL CHARACTERISTICS**

TC=25°C unless otherwise noted

Symbol	Ratings	Test Condition(s)	Min	Typ	Max	Unit
$V_{CEO} (*)$	Collector-Emitter Breakdown Voltage	$I_C = 30 \text{ mA}, I_B = 0$	60	-	-	V
$I_{CEO}$	Collector Cutoff Current	$I_B = 0, V_{CE} = 30 \text{ V}$	-	-	700	$\mu\text{A}$
$I_{CER}$	Collector Cutoff Current	$V_{CE} = 70 \text{ V}, R_{BE} = 100 \Omega$	-	-	1	mA
$I_{CEX}$	Collector Cutoff Current	$V_{CE} = 70 \text{ V}, V_{BE} = 1.5 \text{ V}$	-	-	5	mA
$I_{EBO}$	Emitter Cutoff Current	$V_{EB} = 7 \text{ V}, I_C = 0$	-	-	5	mA
$V_{CE(SAT)} (*)$	Collector-Emitter saturation Voltage	$I_C = 4 \text{ A}, I_B = 400 \text{ mA}$	-	-	1.1	V
		$I_C = 10 \text{ A}, I_B = 3.3 \text{ A}$	-	-	3	
$V_{BE} (*)$	Base-Emitter On Voltage	$I_C = 4 \text{ A}, V_{CE} = 4 \text{ V}$	-	-	1.8	V
$h_{FE} (*)$	DC Current Gain	$I_C = 4 \text{ A}, V_{CE} = 4 \text{ V}$	20	-	70	-
		$I_C = 10 \text{ A}, V_{CE} = 4 \text{ V}$	5	-	-	
$I_{s/b}$	Second Breakdown collector Current. With base Forward Biased	$V_{CE} = 30 \text{ V}, t = 1.0 \text{ s}$ Non repetitive	3	-	-	A
$f_T$	Transition Frequency	$V_{CE} = 10 \text{ V}, I_C = 0.5 \text{ A}$ $f = 1 \text{ kHz}$	2.5	-	-	MHz

 (\*) Pulse Width  $\approx 300 \mu\text{s}$ , Duty Cycle  $\angle 1.5\%$

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**MECHANICAL DATA CASE TO3PN Non Isolated Plastic Package**


DIMENSIONS (mm)		
	Min.	Max.
A	15.20	16.00
B	1.90	2.10
C	4.60	5.00
D	3.10	3.30
E		9.60
F		2.00
G	0.35	0.55
H		1.40
J	5.35	5.55
K	20.00	
L	19.60	20.20
M	0.95	1.25
N		2.00
O		3.00
P		4.00
R		4.00
S		1.80
T	4.80	5.20

Pin 1 :	Base
Pin 2 :	Collector
Pin 3 :	Emitter
Package	Collector

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