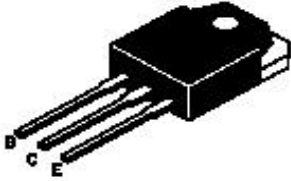


**POWER TRANSISTORS**

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

**TO- 3PN Non Isolated Plastic Package**



Designed for General Purpose Switching and Amplifier Applications

**ABSOLUTE MAXIMUM RATINGS**

DESCRIPTION	SYMBOL	VALUE	UNIT
Collector Emitter Voltage	$V_{CEO}$	60	V
Collector Emitter Voltage	$V_{CER}$	70	V
Collector Base Voltage	$V_{CBO}$	100	V
Emitter Base Voltage	$V_{EBO}$	7.0	V
Collector Current Continuous	$I_C$	15	A
Base Current	$I_B$	7.0	A
Total Power Dissipation upto $T_c=25^\circ\text{C}$ Derate above $25^\circ\text{C}$	$P_D$	90 0.72	W W/ $^\circ\text{C}$
Operating And Storage Junction Temperature Range	$T_j, T_{stg}$	- 65 to +150	$^\circ\text{C}$

**THERMAL RESISTANCE**

From Junction to case	$R_{th(j-c)}$	1.39	$^\circ\text{C/W}$
From Junction to Ambient in free air	$R_{th(j-a)}$	35.7	$^\circ\text{C/W}$

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

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Collector Emitter Sustaining Voltage	$*V_{CEO(sus)}$	$I_C=30\text{mA}, I_B=0$	60			V
Collector Cut Off Current	$I_{CER}$	$V_{CE}=70\text{V}, R_{BE}=100\Omega$			1.0	mA
Collector Cut Off Current	$I_{CEO}$	$V_{CE}=30\text{V}, I_B=0$			0.7	mA
Collector Cut Off Current	$I_{CEV}$	$V_{CE}=100\text{V}, V_{BE(off)}=1.5\text{V}$			5.0	mA
Emitter Cut Off Current	$I_{EBO}$	$V_{BE}=7\text{V}, I_C=0$			5.0	mA
DC Current Gain	$*h_{FE}$	$I_C=4\text{A}, V_{CE}=4\text{V}$ $I_C=10\text{A}, V_{CE}=4\text{V}$	20 5		70	
Collector Emitter Saturation Voltage	$*V_{CE(sat)}$	$I_C=4\text{A}, I_B=400\text{mA}$ $I_C=10\text{A}, I_B=3.3\text{A}$			1.1 3.0	V V
Base Emitter On Voltage	$*V_{BE(on)}$	$I_C=4\text{A}, V_{CE}=4\text{V}$			1.8	V

**Second Breakdown**

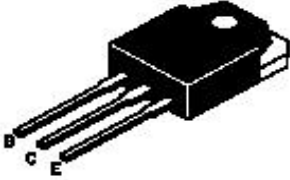
Second Breakdown Collector Current With Base Forward Biased	$I_{S/b}$	$V_{CE}=30\text{V}, t=1\text{s}, \text{Nonrepetitive}$	3			A
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TIP2955\_TIP3055Rev040204E

## POWER TRANSISTORS

TIP2955 PNP  
TIP3055 NPN

TO- 3PN Non Isolated  
Plastic Package



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

#### Dynamic Characteristics

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Current Gain Bandwidth Product	$f_T$	$I_C=0.5\text{A}$ , $V_{CE}=10\text{V}$ , $f=1\text{MHz}$	2.5			MHz
Small Signal Current Gain	$h_{fe}$	$V_{CE}=4\text{V}$ , $I_C=1\text{A}$ , $f=1\text{KHz}$	15			

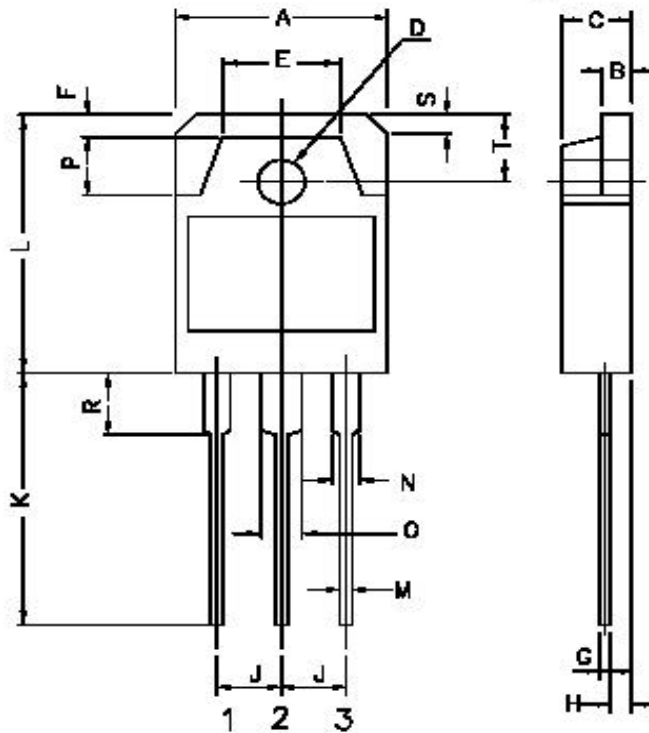
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\* Pulse Test: Pulse Width =300ms ; Duty Cycle  $\leq$  2.0%.

TIP2955 PNP  
TIP3055 NPN

TO-3PN Non Isolated  
Plastic Package

TO-3PN Plastic Package

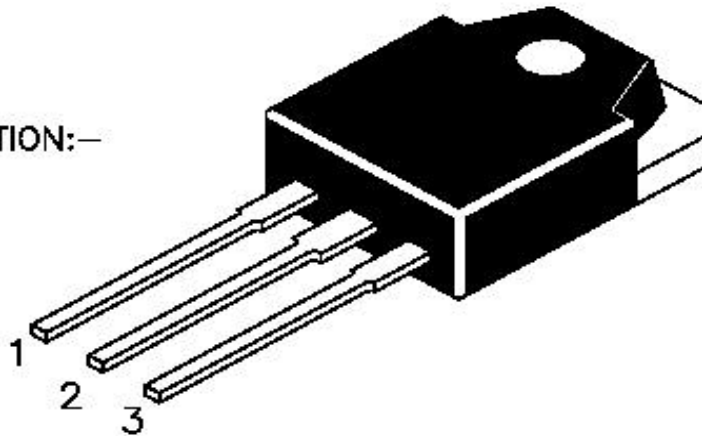


DIM	MIN	MAX
A	15.2	16.0
B	1.9	2.1
C	4.6	5.0
D	3.1	3.3
E	-	9.6
F	-	2.0
G	0.55	0.85
H	-	1.4
J	5.35	5.55
K	20.0	-
L	19.6	20.2
M	0.95	1.25
N	-	2.0
O	-	3.0
P	-	4.0
R	-	4.0
S	-	1.8
T	4.8	5.2

ALL DIMENSIONS ARE IN M.M.

PIN CONFIGURATION:-

1. BASE
2. COLLECTOR
3. EMITTER



Packing Detail

PACKAGE	STANDARD PACK		INNER CARTON BOX		OUTER CARTON BOX		
	Detail	Net Weight/Qty.	Size	Qty.	Size	Qty.	Gr. Wt.
TO-3PN	100pcs/polybag	639gm/100pcs	3"X7.5"X7.5"	0.3K	18"X15"X9"	3K	21kgs

### **Disclaimer**

The product information and the selection guides facilitate selection of the CDIL's Discrete Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished in the Data Sheet and on the CDIL Web Site/CD are believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Discrete Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

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