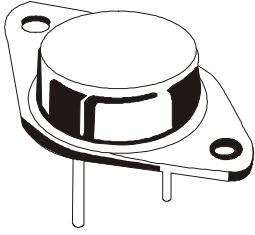


**NPN POWER TRANSISTOR**

**2N3055HV**



**TO-3  
Metal Can Package**

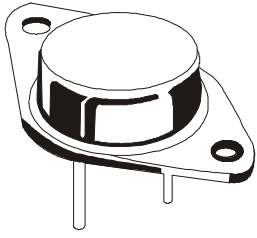
**Switching Regulator and Power Amplifier Applications**

**ABSOLUTE MAXIMUM RATINGS**

DESCRIPTION	SYMBOL	VALUE	UNITS
Collector Base Voltage ( Open Emitter)	$V_{CBO}$	100	V
Collector Emitter Voltage (Open Base)	$V_{CEO}$	100	V
Emitter Base Voltage	$V_{EBO}$	7.0	V
Collector Current	$I_C$	15	A
Base Current	$I_B$	7.0	A
Total Power Dissipation up to $T_c=25^\circ\text{C}$	$P_{tot}$	100	W
Junction Temperature	$T_j$	200	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	- 65 to +200	$^\circ\text{C}$
<b>THERMAL RESISTANCE</b>			
Junction to Case	$R_{th(j-c)}$	1.75	$^\circ\text{C/W}$

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

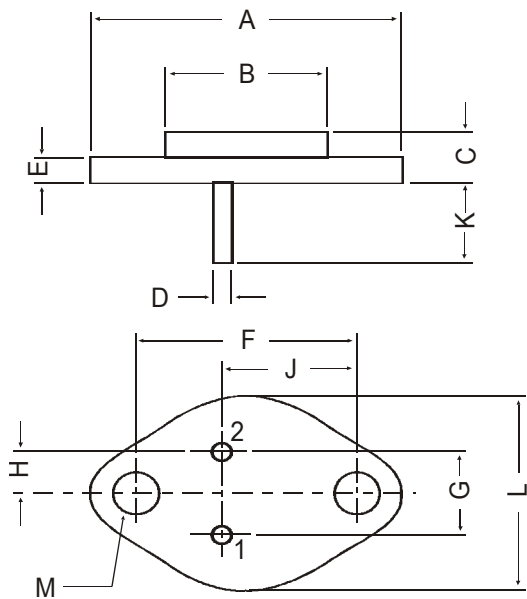
DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNITS
<b>Breakdown Voltages</b>					
	$V_{CEO(sus)}^*$	$I_C=200\text{mA}, I_B=0$	100		V
	$V_{CBO}$	$I_C=1\text{mA}, I_E=0$	100		V
	$V_{EBO}$	$I_E=1\text{mA}, I_C=0$	7		V
<b>Collector Cut off Current</b>	$I_{CEX}$	$V_{CE}=100\text{V}, V_{BE}=(\text{off})=1.5\text{V}$		1.0	mA
	$I_{CEX}$	$T_c=150^\circ\text{C}$ $V_{CE}=100\text{V}, V_{BE}=(\text{off})=1.5\text{V}$		5.0	
<b>Collector Cut off Current</b>	$I_{CEO}$	$V_{CE}=30\text{V}, I_B=0$		0.7	mA
<b>Emitter Cut off Current</b>	$I_{EBO}$	$V_{BE}=7\text{V}, I_C=0$		5.0	mA
<b>Collector Emitter Saturation Voltage</b>	$V_{CE(\text{sat})}^*$	$I_C=4\text{A}, I_B=400\text{mA}$		1.1	V
		$I_C=10\text{A}, I_B=3.3\text{A}$		3.0	
<b>Base Emitter on Voltage</b>	$V_{BE(\text{on})}^*$	$I_C=4\text{A}, V_{CE}=4\text{V}$		2	V
<b>DC Current Gain</b>	$h_{FE}^*$	$I_C=4\text{A}, V_{CE}=4\text{V}$	20	100	
	$h_{FE}^*$	$I_C=10\text{A}, V_{CE}=4\text{V}$	5		

**NPN POWER TRANSISTOR****2N3055HV****TO-3  
Metal Can Package****ELECTRICAL CHARACTERISTICS (T<sub>C</sub>=25°C unless specified otherwise)**

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNITS
<b>Second Breakdown Collector Current with Base Forward Biased</b>	$I_{S/b}$	$V_{CE}=35V, t=1.0 \text{ sec,}$ Nonrepetitive	2.87		A
<b><u>Dynamic Characteristics</u></b>					
<b>Transition Frequency</b>	$f_T$	$I_C=0.5A, V_{CE}=10V, f=1MHz$	2.5		MHz

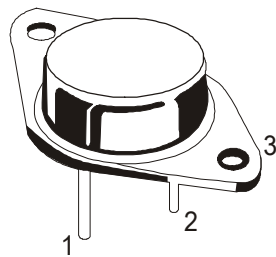
**\*Pulse Test: <300ms, Duty Cycle =2%**

**TO-3 Metal Can Package**



DIM	MIN.	MAX.
A	—	39.37
B	—	22.22
C	6.35	8.50
D	0.96	1.09
E	—	1.77
F	29.90	30.40
G	10.69	11.18
H	5.20	5.72
J	16.64	17.15
K	11.15	12.25
L	—	26.67
M	3.84	4.19

All dimensions in mm.



**PIN CONFIGURATION**

1. BASE
2. EMITTER
3. COLLECTOR

**Packing Detail**

PACKAGE	STANDARD PACK		INNER CARTON BOX		OUTER CARTON BOX		
	Details	Net Weight/Qty	Size	Qty	Size	Qty	Gr Wt
TO-3	100 pcs/pkt	1.3 kg/100 pcs	12.5" x 8" x 1.8"	0.1K	17" x 11.5" x 21"	2K	27.5 kgs

### **Disclaimer**

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