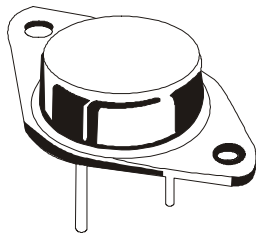


## NPN POWER TRANSISTOR

2N3055HV

TO-3  
Metal Can Package



### Switching Regulator and Power Amplifier Applications

#### ABSOLUTE MAXIMUM RATINGS

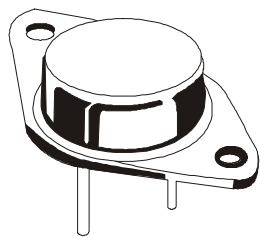
DESCRIPTION	SYMBOL	VALUE	UNITS
Collector Base Voltage ( Open Emitter)	$V_{CBO}$	100	V
Collector Emitter Voltage (Open Base)	$V_{CEO}$	100	V
Emitter Base Voltage	$V_{EBO}$	7.0	V
Collector Current	$I_C$	15	A
Base Current	$I_B$	7.0	A
Total Power Dissipation up to $T_c=25^\circ\text{C}$	$P_{tot}$	100	W
Junction Temperature	$T_j$	200	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	- 65 to +200	$^\circ\text{C}$
THERMAL RESISTANCE			
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
Breakdown Voltages					
	$V_{CEO(sus)}^*$	$I_C=200\text{mA}, I_B=0$	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
Collector Cut off Current	$I_{CEX}$	$V_{CE}=100\text{V}, V_{BE}(\text{off})=1.5\text{V}$		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	
Collector Cut off Current	$I_{CEO}$	$V_{CE}=30\text{V}, I_B=0$		0.7	mA
Emitter Cut off Current	$I_{EBO}$	$V_{BE}=7\text{V}, I_C=0$		5.0	mA
Collector Emitter Saturation Voltage	$V_{CE(\text{Sat})}^*$	$I_C=4\text{A}, I_B=400\text{mA}$		1.1	V
		$I_C=10\text{A}, I_B=3.3\text{A}$		3.0	
Base Emitter on Voltage	$V_{BE(\text{on})}^*$	$I_C=4\text{A}, V_{CE}=4\text{V}$		2	V
DC Current Gain	$h_{FE}^*$	$I_C=4\text{A}, V_{CE}=4\text{V}$	20	100	
	$h_{FE}^*$	$I_C=10\text{A}, V_{CE}=4\text{V}$	5		

NPN POWER TRANSISTOR

2N3055HV



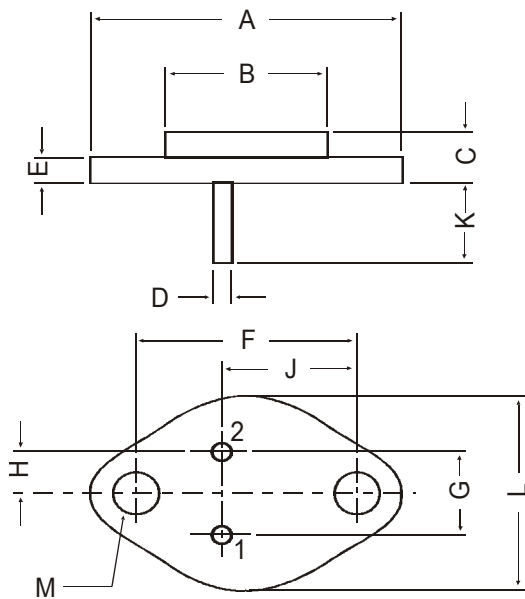
TO-3  
Metal Can Package

ELECTRICAL CHARACTERISTICS (T<sub>C</sub>=25°C unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNITS
Second Breakdown Collector Current with Base Forward Biased	I <sub>S</sub> /b	V <sub>CE</sub> =35V,t=1.0 sec, Nonrepetitive	2.87		A
<u>Dynamic Characteristics</u>					
Transition Frequency	f <sub>T</sub>	I <sub>C</sub> =0.5A, V <sub>CE</sub> =10V, f=1MHz	2.5		MHz

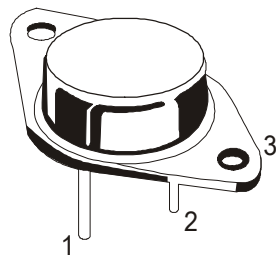
\*Pulse Test: <300μs, Duty Cycle =2%

### TO-3 Metal Can Package



All dimensions in mm.

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



#### 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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