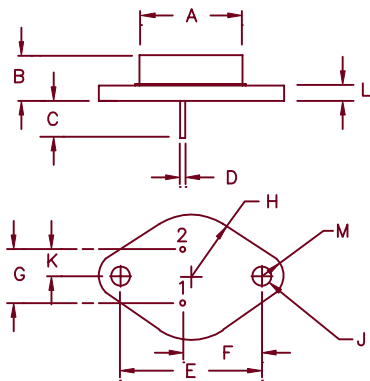


Silicon NPN Transistor 2N3055



Pin 1 - Base
Pin 2 - Emitter
Pin 3 - Collector

Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A	—	.875	—	22.23	Dia.
B	.250	.450	6.35	11.43	
C	.435	—	11.05	—	
D	.038	.043	.97	1.09	Dia.
E	1.177	1.197	29.90	30.40	
F	.655	.675	16.64	17.15	
G	.420	.440	10.67	11.18	
H	—	.525	—	13.34	Rad.
J	.151	.161	3.84	4.09	Dia.
K	.205	.225	5.21	5.72	
L	—	.135	—	3.43	
M	—	.188	—	4.78	Rad.

TO-204AA (TO-3)

ABSOLUTE MAXIMUM RATING (Ta=25°C unless otherwise specified)

PARAMETERS	SYMBOL	VALUE	UNITS
Collector-Base Voltage	V _{CB0}	100	V
Collector-Emitter Voltage	V _{CEO}	60	V
Collector-Base Voltage	V _{EBO}	7	V
Collector-Emitter Voltage	V _{CEV}	70	V
Collector Current	I _c	15	A
Collector Peak Current (1)	I _{CM}	15	A
Base Current	I _B	7	A
Base Peak Current (1)	I _{BM}	15	A
Total Dissipation at Ta = 25°C	P _{tot}	115	W
Storage Temperature	T _{STG}	-65 to 200	°C
Max. Operating Junction Temperature	T _j	200	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
OFF CHARACTERISTICS					
Collector-Emitter Sustaining Voltage	V _{CEO} (sus)	I _c =200mA, I _B =0V	60	---	V
Collector-Emitter Sustaining Voltage	V _{CER} (sus)	I _c =0.2A, R _{BE} =100 Ohms	70	---	V
Collector Cut-off Current	I _{CEO}	V _{CE} =30V, I _B =0	---	0.7	mA
Collector Cut-off Current	I _{CEX}	V _{CE} =100V, V _{BE} (off) = 1.5V V _{CE} =100V, V _{BE} (off) = 1.5V Ta=150°C	---	5.0	mA
Emitter Cut-off Current	I _{EBO}	V _{BE} = 7V, I _c =0	---	5.0	mA
ON CHARACTERISTICS					
DC Current Gain	h _{FE}	I _c =4A, V _{CE} =4V I _c =10A, V _{CE} =4V	20 5	70 ---	---
Collector-Emitter Saturation Voltage	V _{CE} (sat.)	I _c =4A, I _B =400mA I _c =10A, I _B =3.3A	---	1.1 3.0	V ---

2N3055

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
Base-Emitter On Voltage	$V_{BE(on)}$	$I_C=4A, V_{CE}=4V$	---	1.5	V
SECOND BREAKDOWN					
Second Breakdown Collector with Base Forward Biased	I_S/b	$V_{CE}=60V, T=1.0s,$ Non-repetitive	2.87	---	A
DYNAMIC CHARACTERISTICS					
Current Gain-Bandwidth Product	f_T	$I_C=0.5A, V_{CE}=10V, f=1kHz$	2.5	---	MHz
Small Signal-Current Gain	h_{FE}	$I_C=1A, V_{CE}=4V, f=1kHz$	15	120	---
Small Signal-Current Gain Cut-off Frequency	f_{HFE}	$I_C=1A, V_{CE}=4V$ $F = 1.0kHz$	10	---	kHz

Note (1) : Pulse Test; Pulse Width $\leq 300 \mu s$, Duty Cycle $\leq 2\%$

Figure 1
DC Current Gain

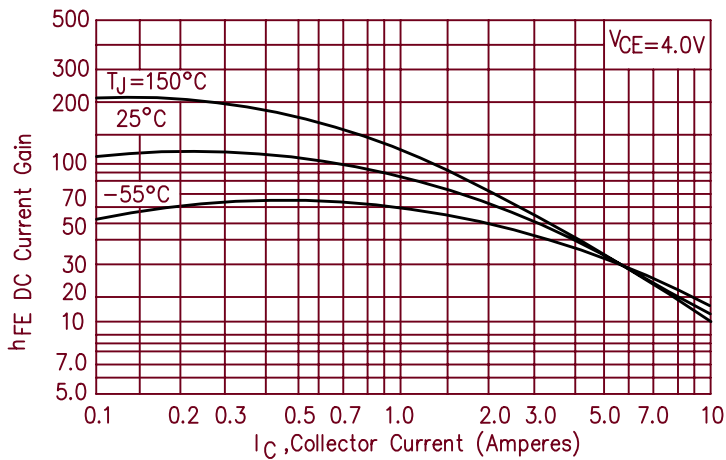


Figure 3
"ON" Voltages - Per Leg

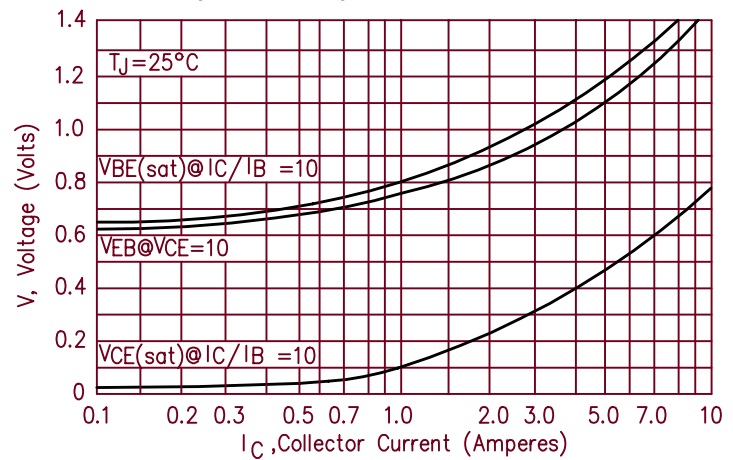


Figure 2
Collector Saturation Region

