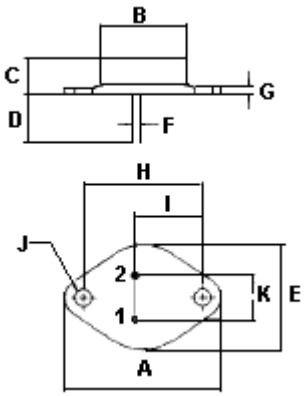
2N3055H

15A Power Transistors

Features:

- The 2N3055H is a Silicon power base transistor for high power audio, series-pass power supplies, disk-head positioners and other linear application. These devices can also be used in power switching circuits such as converters or inverters.
- Higher safe operating area than 2N3055 at V_{CE} >40V.
- Low saturation voltages.
- High power dissipation capability.



Pin 1. Base
2. Emitter
Collector(Case)

Dimensions	Minimum	Maximum
A	38.75	39.96
B	19.28	22.23
C	7.96	9.28
D	11.18	12.19
E	25.20	26.67
F	0.92	1.09
G	1.38	1.62
H	29.90	30.40
I	16.64	17.30
J	3.88	4.36
K	10.67	11.18

Dimensions : Millimetres

NPN
2N3055H

15 Ampere
NPN Silicon Transistors
60 Volts
115 Watts

TO-3

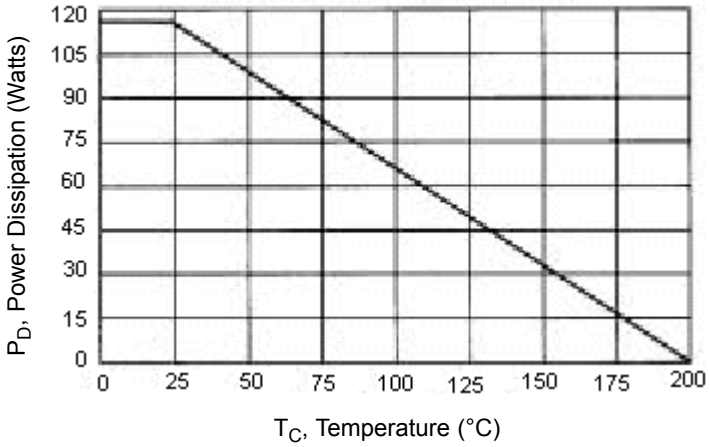
Maximum Ratings

Characteristic	Symbol	Rating	Unit
Collector-Emitter Voltage	V_{CEO}	60	V
Collector-Emitter Voltage	V_{CER}	70	
Collector-Base Voltage	V_{CBO}	100	
Emitter-Base Voltage	V_{EBO}	7.0	
Collector Current-Continuous	I_C	15	A
Base Current	I_B	7.0	
Total Power Dissipation at T_C = 25°C Derate above 25°C	P_D	115 0.657	W W/°C
Operating and Storage Junction Temperature Range	T_J, T_{STG}	-65 to +200	°C

Thermal Characteristics

Characteristic	Symbol	Maximum	Unit
Thermal Resistance Junction to Case	Rθjc	1.52	°C/W

Figure 1 - Power Derating



Electrical Characteristics (T_c = 25°C unless otherwise notes)

Characteristic	Symbol	Minimum	Maximum	Unit
OFF Characteristics (1)				
Collector-Emitter Sustaining Voltage (I_C = 200mA, I_B = 0)	$V_{CEO(sus)}$	60	-	V
Collector-Emitter Sustaining Voltage (I_C = 200mA, R_{BE} = 100Ω)	$V_{CER(sus)}$	70	-	
Collector-Emitter Sustaining Voltage (I_C = 100mA, $V_{BE(off)}$ = 1.5V)	$V_{CEX(sus)}$	90	-	
Collector Cut off Current (V_{CE} = 30V, I_B = 0)	I_{CEO}	-	0.7	mA
Collector Cut off Current (V_{CE} = 100V, $V_{BE(off)}$ = 1.5V) (V_{CE} = 100V, $V_{BE(off)}$ = 1.5V, T_C = 150°C)	I_{CEX}	-	1.0 5.0	
Emitter Cut off Current (V_{EB} = 7.0V, I_C = 0)	I_{EBO}	-	5.0	
ON Characteristics				
DC Current Gain (I_C = 4.0A, V_{CE} = 4.0V) (I_C = 10A, V_{CE} = 4.0V)	h_{FE}	20 5.0	70	-
Collector-Emitter Saturation Voltage (I_C = 4.0A, I_B = 0.4A) (I_C = 10A, I_B = 3.3A)	$V_{CE(sat)}$	-	1.1 8.0	V
Base-Emitter on Voltage (I_C = 4.0A, V_{CE} = 4.0V)	$V_{BE(on)}$	-	1.8	

Characteristic	Symbol	Minimum	Maximum	Unit
Second Breakdown				
Second Breakdown Collector Current with Base Forward Based (t = 1s (non-repetitive), V_{CE} = 60V)	$I_{S/B}$	800	-	KHz
Dynamic Characteristics				
Current Gain-Bandwidth Product (2) (I_C = 1.0A, V_{CE} = 4.0V)	f_T	800	-	KHz
Small-Signal Current Gain (I_C = 1.0A, V_{CE} = 4.0V, f = 1KHz)	h_{fe}	10	-	-

(1) Pulse Test: Pulse Width = 300μs, Duty Cycle ≤2.0%

(2) $f_T = |h_{fe}| \bullet f_{test}$

Specifications

$I_{C(av)}$ maximum (A)	V_{CEO} maximum (V)	h_{FE} minimum at I_C = 4A	P_{tot} at 25°C (W)	Package	Type	Part Number
15	60	20	115	TO-3	NPN	2N3055H

Notes:

International Sales Offices:

AUSTRALIA – Farnell InOne
Tel No: ++ 61 2 9645 8888
Fax No: ++ 61 2 9644 7898

FINLAND – Farnell InOne
Tel No: ++ 358 9 560 7780
Fax No: ++ 358 9 345 5411

NETHERLANDS – Farnell InOne
Tel No: ++ 31 30 241 7373
Fax No: ++ 31 30 241 7333

SWITZERLAND – Farnell InOne
Tel No: ++ 41 1 204 64 64
Fax No: ++ 41 1 204 64 54

AUSTRIA – Farnell InOne
Tel No: ++ 43 662 2180 680
Fax No: ++ 43 662 2180 670

FRANCE – Farnell InOne
Tel No: ++ 33 474 68 99 99
Fax No: ++ 33 474 68 99 90

NEW ZEALAND – Farnell InOne
Tel No: ++ 64 9 357 0646
Fax No: ++ 64 9 357 0656

UK – Farnell InOne
Tel No: ++ 44 8701 200 200
Fax No: ++ 44 8701 200 201

BELGIUM – Farnell InOne
Tel No: ++ 32 3 475 2810
Fax No: ++ 32 3 227 3648

GERMANY – Farnell InOne
Tel No: ++ 49 89 61 39 39 39
Fax No: ++ 49 89 613 59 01

NORWAY – Farnell InOne
Tel No: ++ 45 44 53 66 66
Fax No: ++ 45 44 53 66 02

UK – BuckHickman InOne
++ 44 8450 510 150
++ 44 8450 510 130

BRAZIL – Farnell-Newark InOne
Tel No: ++ 55 11 4066 9400
Fax No: ++ 55 11 4066 9410

HONG KONG – Farnell-Newark InOne
Tel No: ++ 852 2268 9888
Fax No: ++ 852 2268 9899

PORTUGAL – Farnell InOne
Tel No: ++ 34 93 475 8804
Fax No: ++ 34 93 474 5288

UK – CPC
++ 44 8701 202 530
++ 44 8701 202 531

CHINA – Farnell-Newark InOne
Tel No: ++86 10 6238 5152
Fax No: ++86 10 6238 5022

IRELAND – Farnell InOne
Tel No: ++ 353 1 830 9277
Fax No: ++ 353 1 830 9016

SINGAPORE – Farnell-Newark InOne
Tel No: ++ 65 6788 0200
Fax No: ++ 65 6788 0300

EXPORT – Farnell InOne
Tel No: ++ 44 8701 200 208
Fax No: ++ 44 8701 200 209
For enquiries from all other markets

DENMARK – Farnell InOne
Tel No: ++ 45 44 53 66 44
Fax No: ++ 45 44 53 66 06

ITALY – Farnell InOne
Tel No: ++ 39 02 93 995 200
Fax No: ++ 39 02 93 995 300

SPAIN – Farnell InOne
Tel No: ++ 34 93 475 8805
Fax No: ++ 34 93 474 5107

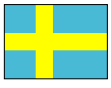
http://www.farnellinone.com

http://www.buckhickmaninone.com

http://www.cpc.co.uk

ESTONIA – Farnell InOne
Tel No: ++ 358 9 560 7780
Fax No: ++ 358 9 345 5411

MALAYSIA – Farnell-Newark InOne
Tel No: ++ 60 3 7873 8000
Fax No: ++ 60 3 7873 7000



SWEDEN – Farnell InOne
Tel No: ++ 46 8 730 50 00
Fax No: ++ 46 8 83 52 62