2N3054
2N3054A

SILICON
NPN POWER TRANSISTORS

Central Semiconductor Corp.
www.centralsemi.com

TO-66 CASE

DESCRIPTION:

The CENTRAL SEMICONDUCTOR 2N3054, 2N3054A devices are silicon NPN power transistors manufactured by the epitaxial base process, mounted in a hermetically sealed metal case, designed for general purpose amplifier and switching applications.

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: (T_C=25°C)	**SYMBOL**		**UNITS**
Collector-Base Voltage	V_{CBO}	90	V
Collector-Emitter Voltage	V_{CEV}	90	V
Collector-Emitter Voltage	V_{CER}	60	V
Collector-Emitter Voltage	V_{CEO}	55	V
Emitter-Base Voltage	V_{EBO}	7.0	V
Continuous Collector Current	I_C	4.0	A
Continuous Base Current	I_B	2.0	A
Power Dissipation (2N3054)	P_D	25	W
Power Dissipation (2N3054A)	P_D	75	W
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +200	°C
Thermal Resistance (2N3054)	Θ_{JC}	7.0	°C/W
Thermal Resistance (2N3054A)	Θ_{JC}	2.33	°C/W

ELECTRICAL CHARACTERISTICS: (T_C=25°C unless otherwise noted)

SYMBOL	**TEST CONDITIONS**	**MIN**	**MAX**	**UNITS**
I_{CEV}	V_{CE}=90V, V_{EB}=1.5V		1.0	mA
I_{CEV}	V_{CE}=90V, V_{EB}=1.5V, T_C=150°C		6.0	mA
I_{CEO}	V_{CE}=30V		500	μA
I_{EBO}	V_{EB}=7.0V		1.0	mA
BV_{CEO}	I_C=100mA	55		V
BV_{CER}	I_C=100mA, R_{BE}=100Ω	60		V
$V_{CE(SAT)}$	I_C=500mA, I_B=50mA		1.0	V
$V_{CE(SAT)}$	I_C=3.0A, I_B=1.0A		6.0	V
$V_{BE(ON)}$	V_{CE}=4.0V, I_C=500mA		1.7	V
h_{FE}	V_{CE}=4.0V, I_C=500mA	25	150	
h_{FE}	V_{CE}=4.0V, I_C=3.0A	5.0		
h_{fe}	V_{CE}=4.0V, I_C=100mA, f=1.0kHz	25	180	
f_T	V_{CE}=10V, I_C=200mA, f=1.0MHz	3.0		MHz
f_{hfe}	V_{CE}=4.0V, I_C=100mA	30		kHz

R2 (2-September 2014)

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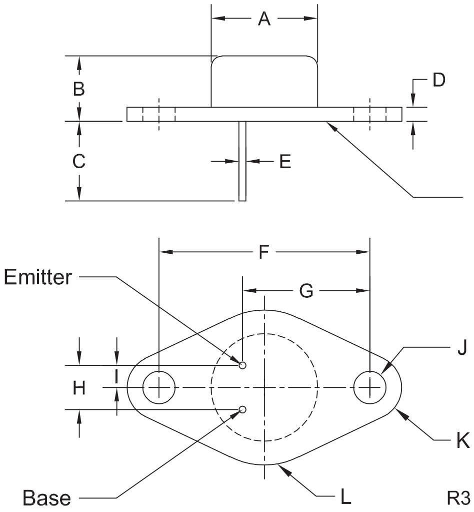
TO-66 CASE - MECHANICAL OUTLINE



Seating Plane:
The seating plane must be within 0.001" concave to 0.004" convex within 0.600" diameter from the center of the device.

MARKING:
FULL PART NUMBER

DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A (DIA)	0.470	0.500	11.94	12.70
B	0.250	0.340	6.35	8.64
C	0.360	-	9.14	-
D	0.050	0.075	1.27	1.91
E (DIA)	0.028	0.034	0.71	0.86
F	0.956	0.964	24.28	24.48
G	0.570	0.590	14.48	14.99
H	0.190	0.210	4.83	5.33
I	0.093	0.107	2.36	2.72
J (DIA)	0.142	0.152	3.61	3.86
K (RAD)	0.141		3.58	
L (RAD)	0.345		8.76	

TO-66 (REV:R3)

R2 (2-September 2014)

OUTSTANDING SUPPORT AND SUPERIOR SERVICES

PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2nd day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

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