2N5202

SILICON
NPN POWER TRANSISTOR

TO-66 CASE

www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR 2N5202 is a silicon NPN power transistor 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}	100	V
Collector-Emitter Voltage	V_{CER}	75	V
Collector-Emitter Voltage	V_{CEO}	50	V
Emitter-Base Voltage	V_{EBO}	6.0	V
Continuous Collector Current	I_C	4.0	A
Peak Collector Current	I_{CM}	5.0	A
Continuous Base Current	I_B	2.0	A
Power Dissipation	P_D	35	W
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +200	°C
Thermal Resistance	Θ_{JC}	5.0	°C/W

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

SYMBOL	**TEST CONDITIONS**	**MIN**	**MAX**	**UNITS**
I_{CEV}	V_{CE}=100V, V_{EB}=1.5V		10	mA
I_{CEV}	V_{CE}=100V, V_{EB}=1.5V, T_C=150°C		10	mA
I_{EBO}	V_{EB}=6.0V		10	mA
BV_{CEO}	I_C=200mA	50		V
BV_{CER}	I_C=200mA, R_{BE}=50Ω	75		V
$V_{CE(SAT)}$	I_C=4.0A, I_B=400mA		1.2	V
$V_{BE(SAT)}$	I_C=4.0A, I_B=400mA		2.0	V
h_{FE}	V_{CE}=1.2V, I_C=4.0A	10	100	
$\|h_{fe}\|$	V_{CE}=10V, I_C=500mA	6.0		
C_{ob}	V_{CB}=10V, f=1.0MHz		175	pF
$I_{s/b}$	V_{CE}=40V, tp=1.0s	400		mA
$E_{s/b}$	V_{BB}=4.0V, R_{BE}=50Ω, L=50μH	0.4		mJ
t_d	V_{CC}=30V, I_C=4.0A, I_{B1}=I_{B2}=0.8A		40	ns
t_r	V_{CC}=30V, I_C=4.0A, I_{B1}=I_{B2}=0.8A		400	ns
t_s	V_{CC}=30V, I_C=4.0A, I_{B1}=I_{B2}=0.8A		1200	ns
t_f	V_{CC}=30V, I_C=4.0A, I_{B1}=I_{B2}=0.8A		400	ns

R0 (15-January 2019)

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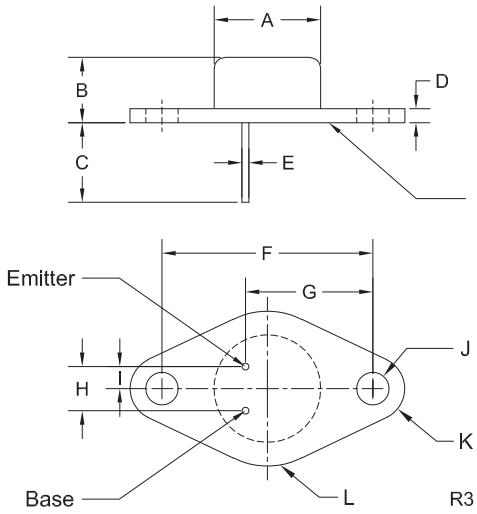
TO-66 CASE - MECHANICAL OUTLINE



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)

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

REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix " TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix " PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

CONTACT US

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