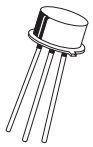
2N5333

PNP SILICON POWER TRANSISTOR



TO-39 CASE

Central™
Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR 2N5333 is a PNP Silicon Power Transistor manufactured by the epitaxial planar process, mounted in a hermetically sealed metal case, designed for 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_{CEO}	80	V
Emitter-Base Voltage	V_{EBO}	6.0	V
Continuous Collector Current	I_C	2.0	A
Peak Collector Current ($t_p \leq 0.3$ms)	I_{CM}	5.0	A
Continuous Base Current	I_B	1.0	A
Power Dissipation (T_A=25°C)	P_D	1.0	W
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +200	°C
Thermal Resistance	Θ_{JA}	175	°C/W

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

SYMBOL	**TEST CONDITIONS**	**MIN**	**TYP**	**MAX**	**UNITS**
I_{CES}	V_{CE}=90V			10	μA
I_{CES}	V_{CE}=50V (T_C=150°C)			500	μA
I_{CEO}	V_{CE}=40V			50	μA
I_{EBO}	V_{EB}=4.0V			1.0	μA
I_{EBO}	V_{EB}=6.0V			100	μA
BV_{CEO}	I_C=30mA	80			V
$V_{CE(SAT)}$	I_C=1.0A, I_B=100mA			0.45	V
$V_{CE(SAT)}$	I_C=2.0A, I_B=400mA			1.0	V
$V_{BE(ON)}$	V_{CE}=4.0V, I_C=2.0A			1.5	V
h_{FE}	V_{CE}=4.0V, I_C=1.0A	30		120	
h_{FE}	V_{CE}=4.0V, I_C=2.0A	10			
h_{fe}	V_{CE}=10V, I_C=1.0A, f=1KHz	30			
f_T	V_{CE}=10V, I_C=1.0A	30			MHz
t_{on}	I_C=1.0A, I_{B1}=I_{B2}=100mA		150		ns
t_{off}	$V_{BE(OFF)}$=3.7V, R_L=20Ω		450		ns

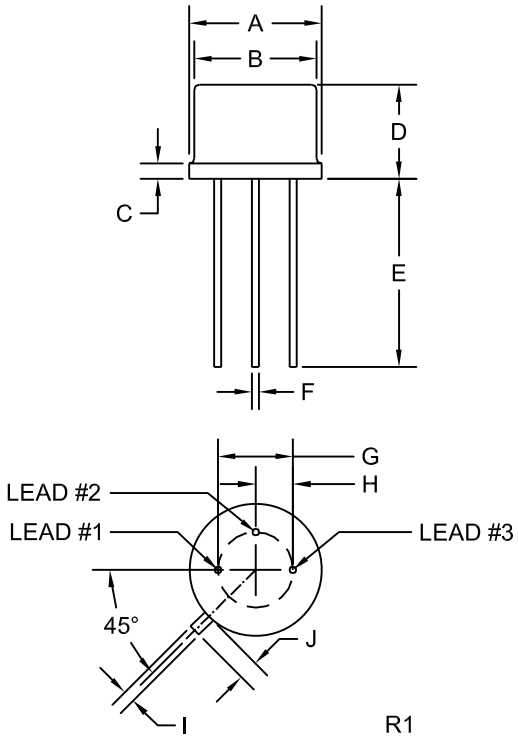
R0 (25-September 2008)

Central™
Semiconductor Corp.

2N5333

NPN SILICON POWER TRANSISTOR

TO-39 CASE - MECHANICAL OUTLINE



DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A (DIA)	0.335	0.370	8.51	9.40
B (DIA)	0.315	0.335	8.00	8.51
C	-	0.040	-	1.02
D	0.240	0.260	6.10	6.60
E	0.500	-	12.70	-
F (DIA)	0.016	0.021	0.41	0.53
G (DIA)	0.200		5.08	
H	0.100		2.54	
I	0.028	0.034	0.71	0.86
J	0.029	0.045	0.74	1.14

TO-39 (REV: R1)

LEAD CODE:
1) EMITTER
2) BASE
3) COLLECTOR (case)

MARKING: FULL PART NUMBER

R0 (25-September 2008)

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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