

2N4033

PNP SILICON TRANSISTOR



TO-39 CASE



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DESCRIPTION:

The CENTRAL SEMICONDUCTOR 2N4033 type is a PNP silicon transistor manufactured by the epitaxial planar process, designed for high current general purpose amplifier applications.

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: (T_A=25°C)

Collector-Base Voltage
Collector-Emitter Voltage
Emitter-Base Voltage
Continuous Collector Current
Power Dissipation
Power Dissipation (T _C =25°C)
Operating and Storage Junction Temperature
Thermal Resistance
Thermal Resistance

SYMBOL		UNITS
V _{CB0}	80	V
V _{CEO}	80	V
V _{EBO}	5.0	V
I _C	1.0	A
P _D	1.25	W
P _D	7.0	W
T _J , T _{stg}	-65 to +200	°C
θ _{JA}	140	°C/W
θ _{JC}	20	°C/W

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

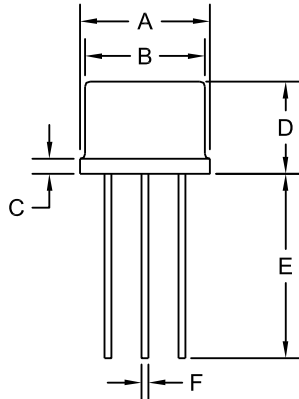
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I _{CBO}	V _{CB} =60V		50	nA
I _{CBO}	V _{CB} =60V, T _A =150°C		50	µA
I _{EBO}	V _{EB} =5.0V		10	µA
BV _{CB0}	I _C =10µA	80		V
BV _{CEO}	I _C =10mA	80		V
BV _{EBO}	I _E =10µA	5.0		V
V _{CE(SAT)}	I _C =150mA, I _B =15mA		0.15	V
V _{CE(SAT)}	I _C =500mA, I _B =50mA		0.50	V
V _{BE(SAT)}	I _C =150mA, I _B =15mA		0.90	V
V _{BE(ON)}	V _{CE} =0.5V, I _C =500mA		1.10	V
h _{FE}	V _{CE} =5.0V, I _C =0.1mA	75		
h _{FE}	V _{CE} =5.0V, I _C =100mA	100	300	
h _{FE}	V _{CE} =5.0V, I _C =500mA	70		
h _{FE}	V _{CE} =5.0V, I _C =1.0A	25		
f _T	V _{CE} =10V, I _C =50mA	100	400	MHz
C _{ob}	V _{CB} =10V, I _E =0, f=1.0MHz		20	pF
C _{ib}	V _{EB} =0.5V, I _C =0, f=1.0MHz		110	pF
t _{on}	I _C =500mA, I _{B1} =50mA		100	ns
t _s	I _C =500mA, I _{B1} =I _{B2} =50mA		350	ns
t _f	I _C =500mA, I _{B1} =I _{B2} =50mA		50	ns

R1 (15-March 2012)

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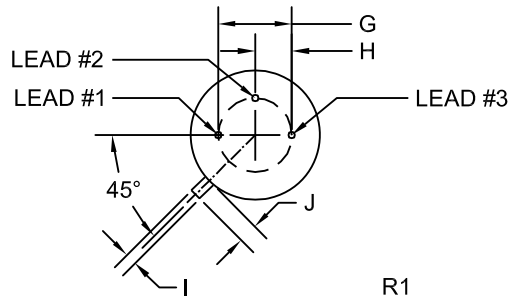


TO-39 CASE - MECHANICAL OUTLINE



DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	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

MARKING: FULL PART NUMBER

R1 (15-March 2012)