

CentralTM Semiconductor Corp.

145 Adams Avenue, Hauppauge, NY 11788 USA
Tel: (631) 435-1110 • Fax: (631) 435-1824

Manufacturers of World Class Discrete Semiconductors

2N3053
2N3053A

NPN SILICON TRANSISTOR

JEDEC TO-39 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N3053, 2N3053A types are Silicon NPN Epitaxial Planar Transistors designed for general purpose applications.

MAXIMUM RATINGS (T_A=25°C)

	SYMBOL	2N3053	2N3053A	UNITS
Collector-Base Voltage	V _{CB0}	60	80	V
Collector-Emitter Voltage	V _{CEO}	40	60	V
Emitter-Base Voltage	V _{EBO}	5.0		V
Collector Current	I _C	700		mA
Power Dissipation (T _C =25°C)	P _D	5.0		W
Operating and Storage Junction Temperature	T _J , T _{stg}	-65 to +200		°C
Thermal Resistance	θ _{JC}	35		°C/W

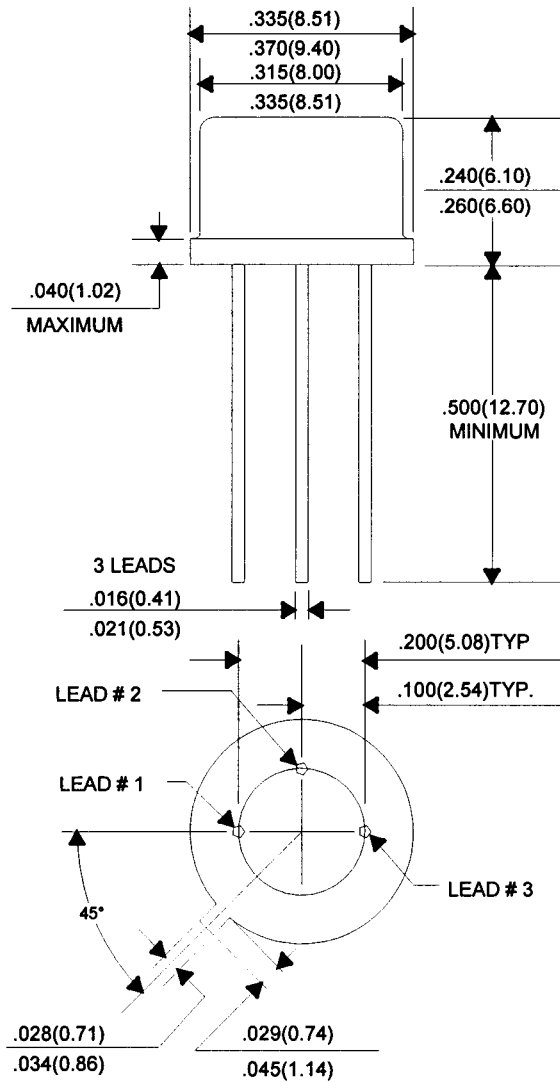
ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	2N3053		2N3053A		UNITS
		MIN	MAX	MIN	MAX	
I _{CEV}	V _{CE} =30V, V _{EB(off)} =1.5V		250			nA
I _{CEV}	V _{CE} =60V, V _{EB(off)} =1.5V			250		nA
I _{EBO}	V _{EB} =4.0V		250	250		nA
BV _{CB0}	I _C =100μA	60		80		V
BV _{CER}	I _C =100mA, R _{BE} =10Ω	50		70		V
BV _{CEO}	I _C =100μA	40		60		V
BV _{EBO}	I _E =100μA	5.0		5.0		V
V _{CE(SAT)}	I _C =150mA, I _B =15mA		1.4		0.3	V
V _{BE(SAT)}	I _C =150mA, I _B =15mA		1.7	0.6	1.0	V
V _{BE(ON)}	V _{CE} =2.5V, I _C =150mA		1.7		1.0	V
h _{FE}	V _{CE} =2.5V, I _C =150mA	25		25		
h _{FE}	V _{CE} =10V, I _C =150mA	50	250	50	250	
f _T	V _{CE} =10V, I _C =50mA, f=20MHz	100		100		MHz
C _{ob}	V _{CB} =10V, I _E =0, f=140kHz		15		15	pF
C _{ib}	V _{BE} =0.5V, I _C =0, f=140kHz		80		80	pF

(See Reverse Side)

JEDEC TO-39 CASE - MECHANICAL OUTLINE

All Dimensions in Inches (mm).



Lead Code:

- 1) Emitter
- 2) Base
- 3) Collector

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