

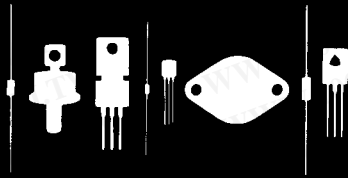
Central Semiconductor Corp.

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145 Adams Avenue
Hauppauge, New York 11788



2N4036
2N4037

SILICON PNP TRANSISTOR

JEDEC TO-39 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N4036, 2N4037 are Silicon PNP Epitaxial Planar Transistors designed for small signal and medium power general purpose industrial applications.

MAXIMUM RATINGS ($T_C=25^{\circ}\text{C}$ unless otherwise noted)

	SYMBOL	2N4036	2N4037	UNIT
Collector-Base Voltage	V_{CB0}	90	60	V
Emitter-Base Voltage	V_{EB0}	7.0	7.0	V
Collector-Emitter Voltage	V_{CE0}	65	40	V
Collector-Emitter Voltage	V_{CEV}, V_{CER}	85	60	V
Collector Current, Continuous	I_C	1.0	1.0	A
Base Current	I_B	0.5	0.5	A
Power Dissipation	P_D	7.0	7.0	W
Power Dissipation ($T_A=25^{\circ}\text{C}$)	P_D	1.0	1.0	W
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 TO +200		$^{\circ}\text{C}$

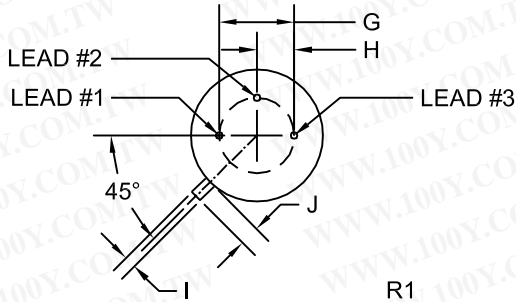
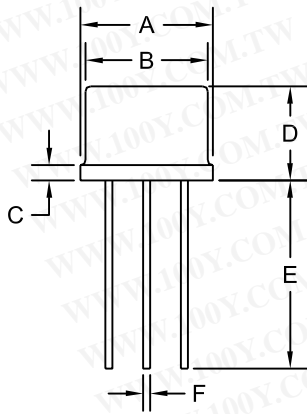
ELECTRICAL CHARACTERISTICS ($T_C=25^{\circ}\text{C}$)

SYMBOL	TEST CONDITIONS	2N4036		2N4037		UNIT
		MIN	MAX	MIN	MAX	
I_{CB0}	$V_{CB}=60\text{V}$		0.02	0.25		μA
I_{EB0}	$V_{EB}=5\text{V}$		0.02	1.0		μA
I_{CE0}	$V_{CE}=30\text{V}$		0.5	5.0		μA
BV_{CB0}	$I_C=0.1\text{mA}$	90		60		V
BV_{EB0}	$I_E=0.1\text{mA}$	7.0		7.0		V
BV_{CE0}	$I_C=100\text{mA}$	65		40		V
BV_{CER}	$I_C=100\text{mA}, R_{BE}=200\ \text{OHMS}$	85		60		V
BV_{CEV}	$V_{BE}=1.5\text{V}, I_C=100\text{mA}$	85		60		V
$V_{CE(s)}$	$I_C=150\text{mA}, I_B=15\text{mA}$		0.65		1.4	V
$V_{BE(on)}$	$V_{CE}=10\text{V}, I_C=150\text{mA}$		1.1		1.5	V
h_{FE}	$V_{CE}=10\text{V}, I_C=0.1\text{mA}$	20		--		--
h_{FE}	$V_{CE}=10\text{V}, I_C=1.0\text{mA}$	--		15		--
h_{FE}	$V_{CE}=10\text{V}, I_C=150\text{mA}$	40	140	50	250	--
h_{FE}	$V_{CE}=10\text{V}, I_C=500\text{mA}$	20		--		--
f_T	$V_{CE}=10\text{V}, I_C=50\text{mA}, f=20\ \text{MHz}$	60		60		MHz
C_{ob}	$V_{CB}=10\text{V}, I_E=0$		30		30	pF
t_{on}	$V_{CE}=30\text{V}, I_C=150\text{mA}, I_{B1}=15\text{mA}$		110		--	nSEC
t_{off}	$V_{CE}=30\text{V}, I_C=150\text{mA}, I_{B2}=15\text{mA}$		700		--	nSEC

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-54151736
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

Package Details - TO-39

Mechanical Drawing



SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
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:

TRIAC

- 1) MT1
- 2) GATE
- 3) MT2

SCR

- 1) CATHODE
- 2) GATE
- 3) ANODE

TRANSISTOR

- 1) EMITTER
- 2) BASE
- 3) COLLECTOR

Packing Code: D

D = White corrugated box with black conductive coating (surface resistivity of $<10^5$ ohms per square).

Standard Packing Quantity: 500

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R0 (21-June 2004)

Material Composition Specification

TO-39 Case

Pb (lead)-free plating*



Device average mass 1006 mg

Fluctuation margin +/-10%

Component	Material	Material		Substance	CAS No.	Substance		
		(%wt)	(mg)			(%wt)	(mg)	(ppm)
active device	doped Si	0.5%	5.0	Si	7440-21-3	0.497%	5.0	4,970
bond wire	alloy	0.04%	0.39	Al	7429-90-5	0.038%	0.38	377
				Si	7440-21-3	0.001%	0.01	9
header	alloy	62.68%	630.56	Fe	7439-89-6	56.945%	572.867	569,450
				Ni	7440-02-0	2.531%	25.46	25,310
				Glass	Proprietary	1.491%	15	14,910
				Co	7440-48-4	1.143%	11.496	11,430
				Mn	7439-96-5	0.248%	2.492	2,477
				P	7723-14-0	0.085%	0.855	850
				Si	7440-21-3	0.073%	0.736	731
				Ag	7440-22-4	0.072%	0.72	715
				C	1333-86-4	0.050%	0.507	503
				Cu	7440-50-8	0.028%	0.28	278
				S	7704-34-9	0.015%	0.155	154
N	7727-37-9	0.004%	0.038	37				
can	alloy	34.79%	350.01	Fe	7439-89-6	34.666%	348.74	346,660
				Mn	7439-96-5	0.084%	0.85	844
				Al	7429-90-5	0.018%	0.18	178
				C	1333-86-4	0.016%	0.16	159
				S	7704-34-9	0.004%	0.04	39
P	7723-14-0	0.003%	0.03	29				
can plating	Nickel	0.89%	9.0	Ni	7440-02-0	0.895%	9	8,946
package finishing	Tin	1.09%	11.0	Sn	7440-31-5	1.093%	11	10,934

*Specify Lead-Free when ordering 100% tin (Pb-free) plating.

Disclaimer

The information provided in this Material Composition data sheet is, to our knowledge, correct. However, there is no guarantee to completeness or accuracy, as some information is derived from data sources outside the company.

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R0 (7-May 2008)

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