Small Signal Transistors

TO-39 Case (Continued)

TYPE NO.	DESCRIPTION	V_{CBO} (V)	V_{CEO} (V) *V_{CER}	V_{EBO} (V)	I_{CBO} @ (μA) *ICEO **ICES ***ICEV ****ICER	V_{CB} (V)	h_{FE}		@ I_C (mA)	@ V_{CE} (V)	$V_{CE\ (SAT)}$ (V)	@ I_C (mA)	f_T (MHz) *TYP	C_{ob} (pF) *TYP	t_{on} (ns) *TYP	t_{off} (ns) *TYP	NF (dB) *TYP
		MIN	MIN	MIN			MIN	MAX			MAX		MIN	MAX	MAX	MAX	MAX
2N4030	PNP AMPL/SWITCH	60	60	5.0	0.50	50	40	120	100	5.0	0.50	500	100	20	- -	- -	- -
2N4031	PNP AMPL/SWITCH	80	80	5.0	0.50	60	100	300	100	5.0	0.50	500	150	20	- -	- -	- -
2N4032	PNP AMPL/SWITCH	60	60	5.0	0.50	50	40	120	100	5.0	0.50	500	100	20	- -	- -	- -
2N4033	PNP AMPL/SWITCH	80	80	5.0	0.50	60	100	300	100	5.0	0.50	500	150	20	- -	- -	- -
2N4036	PNP AMPL/SWITCH	90	65	7.0	0.20	60	20	200	150	10	0.65	150	60	30	- -	- -	- -
2N4037	PNP AMPL/SWITCH	60	40	7.0	0.25	60	50	250	150	10	1.40	150	60	30	- -	- -	- -
2N4046	NPN CORE DRIVER	50	30	6.0	1.70	40	40	150	100	1.0	0.75	1,000	250	12	35	60	- -
2N4047	NPN CORE DRIVER	80	50	6.0	1.70	60	40	150	100	1.0	0.95	1,000	250	10	35	60	- -
2N4234	PNP AMPL/SWITCH	40	40	7.0	100	40	30	150	250	1.0	0.60	1,000	3.0	100	- -	- -	- -
2N4235	PNP AMPL/SWITCH	60	60	7.0	100	60	30	150	250	1.0	0.60	1,000	3.0	100	- -	- -	- -
2N4236	PNP AMPL/SWITCH	80	80	7.0	100	80	30	150	250	1.0	0.60	1,000	3.0	100	- -	- -	- -
2N4237	NPN POWER AMPL	50	40	6.0	100	50	30	150	250	1.0	0.60	1,000	2.0	100	- -	- -	- -
2N4238	NPN POWER AMPL	80	60	6.0	100	80	30	150	250	1.0	0.60	1,000	2.0	100	- -	- -	- -
2N4239	NPN POWER AMPL	100	80	6.0	100	100	30	150	250	1.0	0.60	1,000	2.0	100	- -	- -	- -
2N4270	NPN POWER AMPL	200	140	6.0	1.00	150	40	200	10	10	1.00	10	- -	5.0	- -	- -	- -
2N4271	NPN AMPL/SWITCH	175	140	6.0	0.50	30	20	140	200	10	0.80	200	20	25	- -	- -	- -
2N4272	NPN AMPL/SWITCH	175	140	6.0	0.10	50	20	140	200	10	0.20	2,000	10	75	- -	- -	- -
2N4300	NPN AMPL/SWITCH	100	80	6.0	10	90	30	120	1.0	2.0	0.30	1.0	30	- -	- -	- -	- -
2N4314	PNP AMPL/SWITCH	90	65	7.0	0.25	60	50	250	150	10	1.40	150	60	30	- -	- -	- -
2N4358	PNP HIGH VOLTAGE	240	240	6.0	0.20	200	80	300	10	10	0.50	10	- -	- -	- -	- -	- -
2N4404	PNP AMPL/SWITCH	80	80	5.0	0.025	60	40	120	150	10	0.50	500	200	10	- -	- -	- -
2N4405	PNP AMPL/SWITCH	80	80	5.0	0.025	60	100	300	150	1.0	0.50	500	200	10	- -	- -	- -
2N4406	PNP AMPL/SWITCH	80	80	5.0	0.025	60	25	100	150	1.0	0.70	1,000	150	15	- -	- -	- -
2N4407	PNP AMPL/SWITCH	80	80	5.0	0.025	60	75	225	150	1.0	0.70	1,000	150	15	- -	- -	- -
2N4427	NPN VHF OSCILLATOR	40	20	3.5	20*	12	10	200	100	5.0	0.50	100	500	4.0	- -	- -	- -
2N4863	NPN AMPL/SWITCH	140	120	6.0	0.10	60	50	150	0.5	5.0	0.20	0.5	50	50	- -	- -	- -
2N4875	NPN AMPL/SWITCH	40	25	- -	0.50	15	20	200	50	10	- -	- -	800	- -	- -	- -	- -
2N4876	NPN AMPL/SWITCH	40	30	- -	0.50	15	20	200	50	10	- -	- -	- -	- -	- -	- -	- -
2N4877	NPN AMPL/SWITCH	70	60	5.0	100	70	20	100	4,000	2.0	1.00	4,000	30	- -	- -	- -	- -
2N4890	PNP AMPL/SWITCH	60	40	5.0	0.25***	60	50	250	150	10	1.40	150	100	15	- -	- -	- -
2N4895	NPN AMPL/SWITCH	120	60	6.0	1.00**	60	40	120	2,000	2.0	1.00	5,000	50	80	- -	- -	- -
2N4896	NPN AMPL/SWITCH	120	60	6.0	1.00**	60	100	300	2,000	2.0	1.00	5,000	80	80	- -	- -	- -
2N4897	NPN AMPL/SWITCH	150	80	6.0	1.00**	100	40	120	2,000	2.0	1.00	5,000	50	80	- -	- -	- -
2N4924	NPN AMPL/SWITCH	100	100	5.0	0.10	50	40	200	150	10	0.25	10	100	10	- -	- -	- -
2N4925	NPN HIGH VOLTAGE	150	150	5.0	0.10	75	40	200	150	10	0.25	10	100	10	- -	- -	- -
2N4926	NPN HIGH VOLTAGE	200	200	7.0	0.10	100	20	200	30	10	1.00	10	30	6.0	- -	- -	- -
2N4927	NPN HIGH VOLTAGE	250	250	7.0	0.10	150	20	200	30	10	1.00	10	30	6.0	- -	- -	- -
2N4928	PNP HIGH VOLTAGE	100	100	4.0	0.50	50	25	200	10	10	0.50	10	100	6.0	- -	- -	- -
2N4929	PNP HIGH VOLTAGE	150	150	4.0	0.50	75	25	200	10	10	0.50	10	100	10	- -	- -	- -

(6-December 2004)

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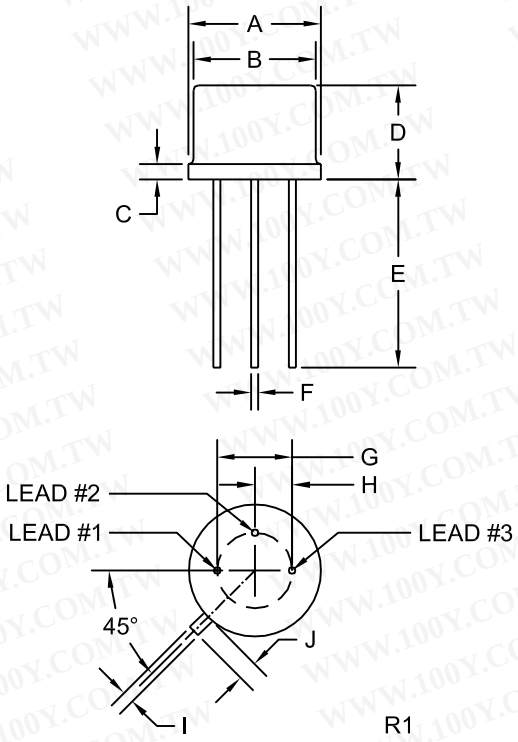
胜特力电子(上海) 86-21-54151736
胜特力电子(深圳) 86-755-83298787
Http://www.100y.com.tw

Package Details - TO-39

Mechanical Drawing



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:

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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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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