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SPC-F005.DWG

REVISIONS

DOC. NO. SPC-F005 * Effective: 7/8/02 * DCP No: 1398

DCP #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
1447	A	RELEASED	HYO	6/11/02	JWM	2/20/04	JC	2/20/04
1885	B	UPDATED TO ROHS COMPLIANCE	EO	02/03/06	HO	2/6/06	HO	2/6/06

Dimensions	A	B	C	D	E	F	G	H	J	K	L
Min.	8.50	7.74	6.09	0.40	-	2.41	4.82	0.71	0.73	12.70	42°
Max.	9.39	8.50	6.60	0.53	0.88	2.66	5.33	0.86	1.02	-	48°



This is a silicon PNP transistor in a TO-39 type case designed primarily for amplifier and switching applications. This device features high breakdown voltage, low leakage current, low capacity, and beta useful over an extremely wide current range.

Electrical Characteristics: (T_A = +25°C Unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
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OFF Characteristics

Collector-Emitter Breakdown Voltage	V _{(BR)CEO}	I _C = 100mA, I _B = 0	65	-	-	V
Emitter-Base Breakdown Voltage	V _{(BR)EBO}	I _E = 10μA, I _C = 0	7	-	-	V
Collector Cut-Off Current	I _{CBO}	V _{CB} = 90V, I _E = 0	-	-	100	μA
Emitter Cut-Off Current	I _{EBO}	V _{BE} = 7V, I _C = 0	-	-	10	μA

ON Characteristics, Note 1

DC Current Gain	h _{FE}	V _{CE} = 10V, I _C = 100μA	20	-	-	-
		V _{CE} = 2V, I _C = 150mA	20	-	200	-
		V _{CE} = 10V, I _C = 500mA	20	-	-	-
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _C = 150mA, I _B = 15mA	-	-	0.65	V
Base-Emitter Saturation Voltage	V _{BE(sat)}	I _C = 150mA, I _B = 15mA	-	-	1.4	V

Small-Signal Characteristics

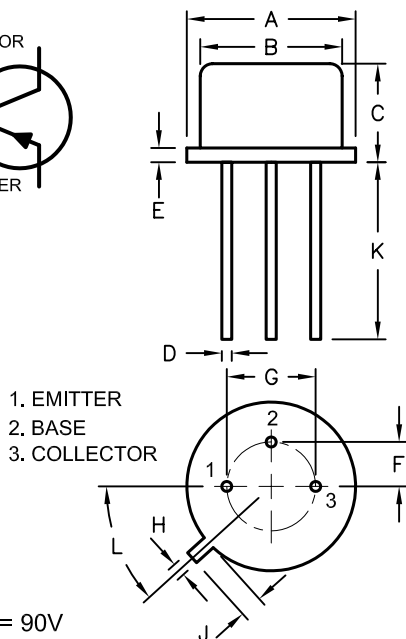
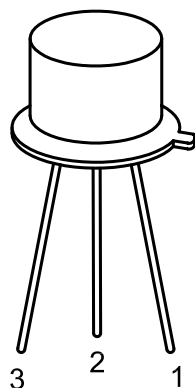
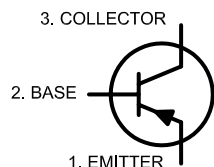
Small-Signal Current Gain	h _{fe}	V _{CE} = 10V, I _C = 50mA, f = 20MHz	1	-	-	-
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Switching Characteristics

Storage Time	t _s	I _{B2} = 15mA	-	-	600	nS
Turn-On Time	t _{on}	I _{B1} = I _{B2}	-	-	110	nS
Fall Time	t _f	I _{B2} = 15mA	-	-	100	nS

Note 1. Pulse Test: Pulse Width ≤ 300μs, Duty Cycle ≤ 1%.

PNP



Absolute Maximum Ratings:

1. Collector-Base Voltage, V_{CBO} = 90V
2. Collector-Emitter Voltage, V_{CEO} = 65V
3. Emitter-Base Voltage, V_{EBO} = 7V
4. Continuous Collector Current, I_C = 1A
5. Total Device Dissipation (T_A = +25°C), P_D = 1W
Derate above 25°C = 5.72mW/°C
6. Total Device Dissipation (T_C = +25°C), P_D = 5W
Derate above 25°C = 28.6mW/°C
7. Operating Junction Temperature Range, T_J = -65° to +200°C
8. Storage Temperature Range, T_{stg} = -65° to +200°C
9. Thermal Resistance, Junction-to-Case, R_{thJC}: 35°C
10. Lead temperature (During Soldering, 1/16" from case, 60sec max), T_L: 300°C

DISCLAIMER:
ALL STATEMENTS AND TECHNICAL INFORMATION CONTAINED HEREIN ARE BASED UPON INFORMATION AND/OR TESTS WE BELIEVE TO BE ACCURATE AND RELIABLE. SINCE CONDITIONS OF USE ARE BEYOND OUR CONTROL, THE USER SHALL DETERMINE THE SUITABILITY OF THE PRODUCT FOR THE INTENDED USE AND ASSUME ALL RISK AND LIABILITY WHATSOEVER IN CONNECTION THEREWITH.

TOLERANCES:

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE FOR REFERENCE PURPOSES ONLY.

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DATE:

2/20/04

DRAWING TITLE:

Transistor, Bipolar, Metal, TO-39, PNP

SIZE

A

DWG. NO.

2N4036

ELECTRONIC FILE

35C0711.DWG

REV

B

SCALE: NTS

U.O.M.: Millimeters

SHEET: 1 OF 1