multicomp

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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
1262	A	RELEASED	HYO	1/31/02	JWM	1/31/02	DJC	1/31/02
1885	B	UPDATED TO ROHS COMPLIANCE	EO	02/03/06	HO	2/6/06	HO	2/6/06

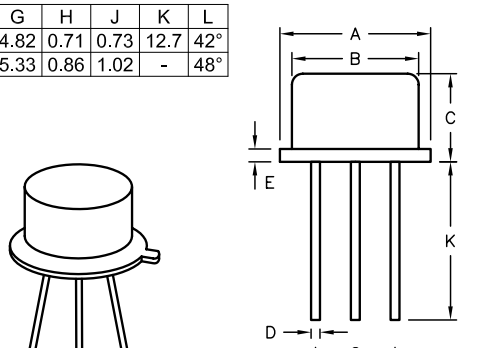
Description: A silicon PNP transistor in a TO-39 type case designed primarily for amplifier and switching applications. This device features high breakdown voltage, low leakage current, low capacity, and beta useful over an extremely wide current range.

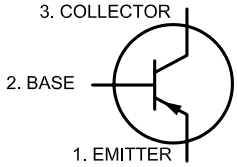
RoHS Compliant

Absolute Maximum Ratings:

- Collector-Base Voltage, V_{CBO} = 60V
- Collector-Emitter Voltage, V_{CEO} = 40V
- Emitter-Base Voltage, V_{EBO} = 7V
- Continuous Collector Current, I_C = 1A
- Total Device Dissipation (T_A = +25°C), P_D = 1W
  Derate above 25°C = 5.72mW/°C
- Total Device Dissipation (T_C = +25°C), P_D = 5W
  Derate above 25°C = 28.6mW/°C
- Operating Junction Temperature Range, T_J = −65° to +200°C
- Storage Temperature Range, T_{stg} = −65° to +200°C
- Thermal Resistance, Junction-to-Case, R_{thJC} = 35°C/W
- Lead Temperature (During Soldering, 1/16" from case, 60sec max), T_L = 300°C

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	12.7	42°
Max.	9.39	8.50	6.60	0.53	0.88	2.66	5.33	0.86	1.02	-	48°





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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
OFF Characteristics						
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C = 100mA, I_B = 0	40	–	–	V
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C = 100µA, I_E = 0	60	–	–	V
Collector Cut-Off Current	I_{CBO}	V_{CB} = 60V, I_E = 0	–	–	250	nA
Emitter Cut-Off Current	I_{EBO}	V_{BE} = 5V, I_C = 0	–	–	1	µA
ON Characteristics (Note 1)						
DC Current Gain	h_{FE}	V_{CE} = 10V, I_C = 1mA	15	–	–	–
		V_{CE} = 10V, I_C = 150mA	50	–	250	–
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = 150mA, I_B = 15mA	–	–	1.4	V
Base-Emitter ON Voltage	$V_{BE(on)}$	V_{CE} = 10V, I_C = 150mA	–	–	1.5	V
Small-Signal Characteristics						
Small-Signal Current Gain	h_{fe}	V_{CE} = 10V, I_C = 50mA, f = 20MHz	3	–	–	–

Note 1:
Pulse test: Pulse width ≤300µs, Duty cycle ≤1%

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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DRAWING TITLE: Transistor, TO-39, Silicon, Amplifier & Switching

SIZE	DWG. NO.	ELECTRONIC FILE	REV
A	2N4037	35C0712.DWG	B

SCALE: NTS | U.O.M.: Millimeters | SHEET: 1 OF 1

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