multicomp

SPC-F005.DWG

REVISIONS

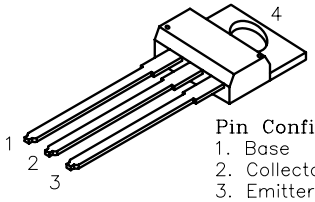
DOC. NO. SPC-F005 * Effective: 7/8/02 * DCP No: 1398

DCP #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
1885	A	RELEASED	BYF	02/08/06	HO	2/6/06	JWM	2/6/06

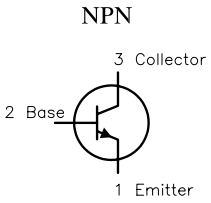
RoHS Compliant

Description:

The TIP41C is a silicon epitaxial-base NPN power transistor in a TO-220 type plastic package intended for use in power linear and switching applications.



Pin Configuration:
1. Base
2. Collector
3. Emitter
4. Collector



Absolute Maximum Ratings:

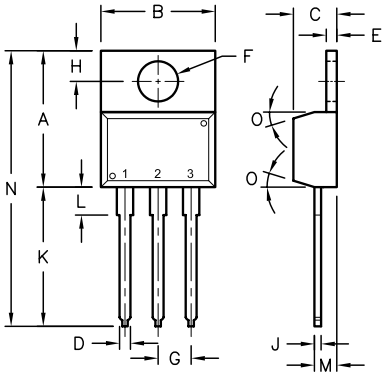
- Collector-Base Voltage (I_E = 0), V_{CBO} =100V
- Collector-Emitter Voltage (I_B = 0), V_{CEO} =100V
- Emitter-Base Voltage (I_C = 0), V_{EBO} = 5V
- Collector Current, I_C= 6A
- Base Current, I_B = 2A
- Total Power Dissipation ($T_C \leq +25°C$), P_D = 65W
- Operating Junction Temperature, T_J = +150°C
- Storage Temperature Range, T_{stg}= -65° to +150°C
- Thermal Resistance, Junction-to-Case, R_{thJC} = 1.92°C/W

Dimensions	A	B	C	D	E	F	G	H	J	K	L	M	N	O
Min.	14.42	9.63	3.56	–	1.15	3.75	2.29	2.54	–	12.70	2.80	2.03	–	7°
Max.	16.51	10.67	4.83	0.90	1.40	3.88	2.79	3.43	0.56	14.73	4.07	2.92	31.24	

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

Parameter	Symbol	Test Conditions	Min	Max	Unit
Collector Cutoff Current	I_{CEO}	V_{CE} = 60V, I_B = 0	–	0.7	mA
Emitter Cutoff Current	I_{EBO}	V_{EB} = 5V, I_C = 0	–	1	mA
Collector-Emitter Sustaining Voltage	$V_{CEO(sus)}$	I_C = 30mA, I_B = 0, (Note 1)	100	–	V
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = 6A, I_B = 600mA, (Note 1)	–	1.5	V
Base-Emitter Voltage	$V_{BE(on)}$	I_C = 6A, V_{CE} = 4V, (Note 1)	–	2	V
DC Current Gain	h_{FE}	I_C = 300mA, V_{CE} = 4V, (Note 1)	30	–	–
		I_C = 3A, V_{CE} = 4V, (Note 1)	15	75	–
Transition Frequency	f_T	V_{CE} = 10V, I_C = 500mA, f = 1MHz	3	–	MHz

Note 1.Pulsed: Pulse Duration = 300µs, Duty Cycle = 1.5%.



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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HISHAM ODISH	2/6/06
APPROVED BY:	DATE:
JEEF MCVICKER	2/6/06

DRAWING TITLE: Power Transistor, Silicon, Epitaxial-Base, TO-220, NPN

SIZE	DWG. NO.	ELECTRONIC FILE	REV
A	TIP41C	35C0643.DWG	A

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