multicomp

SPC-F005.DWG

REVISIONS

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

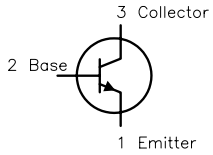
DCP #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
1885	A	RELEASED	BYF	02/03/06	HO	2/6/06	JWM	2/6/06

Description: The TIP41C is a silicon epitaxial-base NPN power transistor in a TO220 type plastic package intended for use in power linear and switching applications.

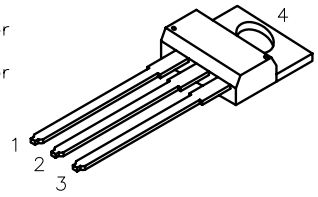
RoHS Compliant

Absolute Maximum Ratings:
- Collector-Base Voltage, V_{CBO} = 100V
- Collector-Emitter Voltage, V_{CEO} = 60V
- Emitter-Base Voltage, V_{EBO} = 5V
- Continuous Collector Current, I_C = 6A
- Base Current, I_B = 2A
- Total Device Dissipation (T_C = +25°C), P_D = 65W
- Operating Junction Temperature Range, T_J = +150°C
- Storage Temperature Range, T_{stg} = −65°C to +150°C
- Thermal Resistance, Junction-to-Case, R_{thJC} = 1.92°C/W

NPN



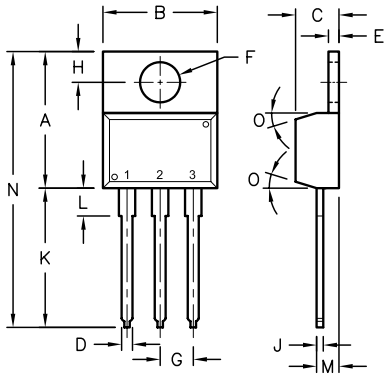
Pin Configuration:
1. Base
2. Collector
3. Emitter
4. Collector



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

Parameter	Symbol	Test Conditions	Min	Max	Unit
OFF Characteristics					
Collector-Emitter Breakdown Voltage (Note 1)	$V_{(BR)CEO}$	I_C = 30mA, I_B = 0	60	–	V
Collector Cut-Off Current	I_{CEO}	V_{CB} = 30V, I_B = 0	–	0.7	mA
Emitter Cut-Off Current	I_{EBO}	V_{EB} = 5V, I_C = 0	–	1	mA
ON Characteristics (Note 1)					
DC Current Gain	h_{FE}	V_{CE} = 4V, I_C = 0.3A	30	–	–
		V_{CE} = 4 V, I_C = 3A	15	75	–
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = 6A, I_B = 0.6A	–	1.5	V
Base-Emitter On Voltage	$V_{BE(on)}$	I_C = 6A, V_{CE} = 4V	–	2	V
Small-Signal Characteristics					
Current Gain-Bandwidth Product	f_T	V_{CE} = 10 V, I_C = 500mA, f = 1MHz	3	–	MHz

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



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	

TOLERANCES:

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE FOR REFERENCE PURPOSES ONLY.

DRAWN BY:	DATE:
BASAM YOUSIF	02/03/06
CHECKED BY:	DATE:
HISHAM ODISH	2/6/06
APPROVED BY:	DATE:
JEEF MCVICKER	2/6/06

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

SIZE	DWG. NO.	ELECTRONIC FILE	REV
A	TIP41A	01H1005.DWG	A

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