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

Description:

TO-220, PNP Silicon plastic transistor Designed for use in high frequency drivers in audio amplifier applications

RoHS Compliant

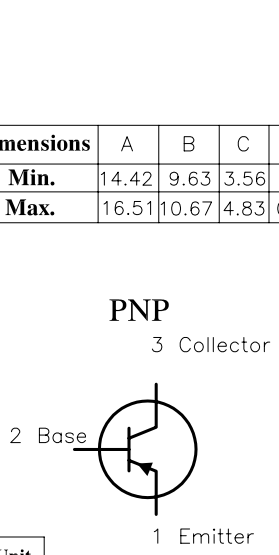
Features:

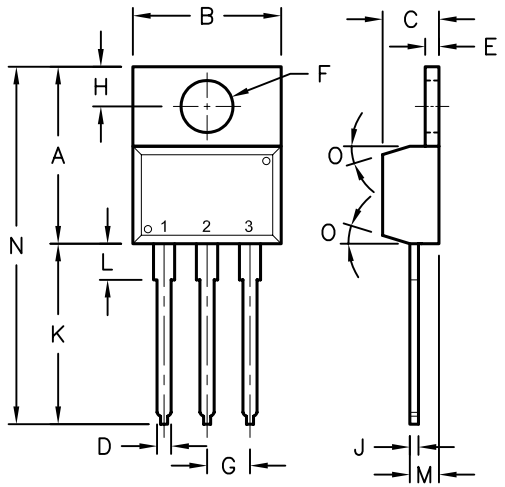
- Collector-Emitter Sustaining Voltage V_{CEO} = 150V
- DC Current Gain Specified to 8 Ampers h_{FE} = 40(Min) @ I_C = 3A
  h_{FE} = 20(Min0 @ I_C = 4A

Absolute Maximum Ratings:

- Collector-Base Voltage, V_{CBO} = 150V
- Collector-Emitter Voltage, V_{CEO} = 150V
- Emitter-Base Voltage, V_{EBO} = 5V
- Continuous Collector Current, I_C = 8mA
- Base Current, I_B = 2A
- Total Device Dissipation (T_C = +25°C), P_D = 50W
  Derate above 25°C = 0.4 mW/°C
- Operating Junction Temperature Range, T_J = -65°C to +150 °C
- Storage Temperature Range, T_{stg}= -65°C to +150°C

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	

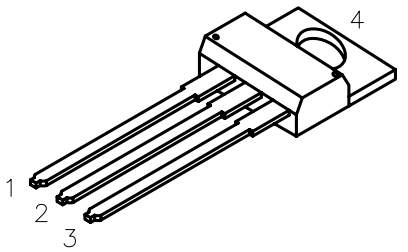




Electrical Characteristics: (T_C= +25°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Max	Unit
OFF Characteristics					
Collector-Emitter Breakdown Voltage (Note 1)	$V_{(BR)CEO}$	I_C =10, I_B = 0	150	–	V
Collector Cut-Off Current	I_{CBO}	V_{CB} = 150 V, I_E = 0	–	10	µA
	I_{CEO}	V_{CB} =150 V, I_B = 0	–	0.1	mA
Emitter Cut-Off Current	I_{EBO}	V_{EB} = 5V, I_C = 0	–	10	µA
ON Characteristics (Note 1)					
DC Current Gain	h_{FE}	V_{CE} = 2V, I_C = 0.1A	40	–	–
		V_{CE} = 2V, I_C = 2A	40	–	–
		V_{CE} = 2V, I_C = 3A	40	–	–
		V_{CE} = 2V, I_C = 4A	20	–	–
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = 1A, I_B = 0.1A	–	0.5	V
Base-Emitter On Voltage	$V_{BE(on)}$	I_C =1A, V_{CE} = 2V	–	1	V
Small-Signal Characteristics					
Current Gain-Bandwidth Product (Note 2)	f_T	V_{CE} = 10 V, I_C =05A, f =10 MHz	30	–	MHz

Note 1. Pulse Test: Pulse Width ≦ 300µs, Duty Cycle ≦ 2%.
Note 2. f_T is defined as the frequency at which $|h_{fe}|$ extrapolates to unity



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

TOLERANCES:

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE FOR REFERENCE PURPOSES ONLY.

DRAWN BY:	DATE:
BASAM YOUSIF	02/08/06
CHECKED BY:	DATE:
HISHAM ODISH	2/6/06
APPROVED BY:	DATE:
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DRAWING TITLE: Transistor, Silicon, Plastic, TO-220, PNP

SIZE	DWG. NO.	ELECTRONIC FILE	REV
A	MJE15031	01H0843.DWG	A

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