

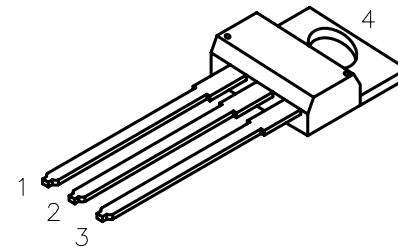
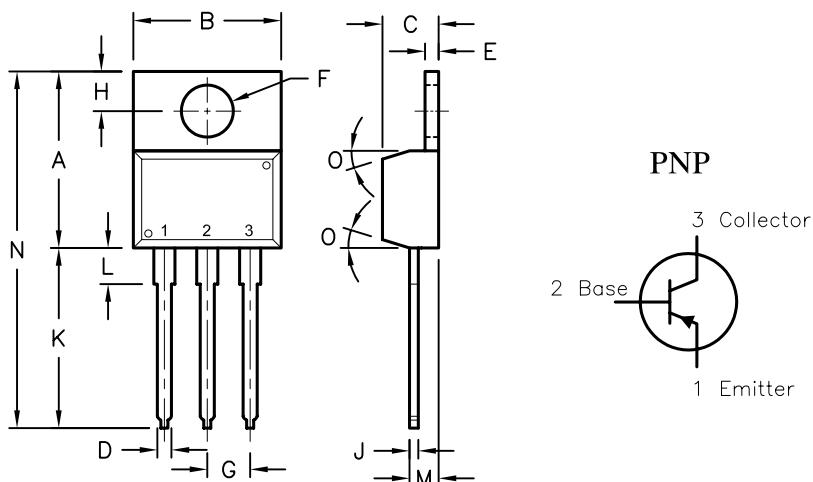
DCP #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
1447	A	RELEASED	HO	2/16/04	JW	4/1/04	JC	4/27/04
1885	B	UPDATE TO ROHS COMPLIANT	EO	02/04/06	HO	2/6/06	HO	2/6/06

Description: A silicon PNP transistor in a standard TO-220 type package designed for use in general purpose amplifier and switching applications.



Absolute Maximum Ratings:

- Collector-Base Voltage, $V_{CB} = 45V$
- Collector-Emitter Voltage, $V_{CEO} = 45V$
- Emitter-Base Voltage, $V_{EB} = 5V$
- Collector Current, I_C
Continuous = 4A
- Base Current, $I_B = 1A$
- Collector Power Dissipation ($T_C = +25^\circ C$), $P_D = 40W$
Derate above $+25^\circ C = 0.32W/^\circ C$
- Operating Junction Temperature Range, $T_J = -65^\circ$ to $+150^\circ C$
- Storage Temperature Range, $T_{STG} = -65^\circ$ to $+150^\circ C$
- Thermal Resistance, Junction-to-Case, $R_{thJC} = 3.125^\circ C/W$



Pin Configuration:

1. Base
2. Collector
3. Emitter
4. Collector

Electrical Characteristics: ($T_A = +25^\circ C$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Max	Unit
OFF Characteristics					
Collector-Emitter Sustaining Voltage	$V_{CEO(sus)}$	$I_C = 100mA, I_B = 0$, Note 1	45	—	V
Collector Cutoff Current	I_{CEO}	$V_{CE} = 45V, I_B = 0$	—	1	mA
	I_{CEX}	$V_{CE} = 45V, V_{EB(off)} = 1.5V$	—	0.1	mA
		$V_{CE} = 45V, V_{EB(off)} = 1.5V, T_C = +125^\circ C$	—	2	mA
Emitter Cutoff Current	I_{EBO}	$V_{BE} = 5V, I_C = 0$	—	1	mA
ON Characteristics (Note 1)					
DC Current Gain		h_{FE}	25	100	
		$V_{CE} = 2V, I_C = 1.5A$	10	—	
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	$I_C = 4A, I_B = 1A$	—	$1.4^\circ C$
Base-Emitter ON Voltage		$V_{BE(on)}$	$V_{CE} = 2V, I_C = 1.5A$	—	V
Dynamic Characteristics					
Current Gain-Bandwidth Product	f_T	$V_{CE} = 4V, I_C = 0.1A, f = 1MHz$	2.5	—	MHz
Small-Signal Current Gain	h_{fe}	$V_{CE} = 2V, I_C = 0.1A, f = 1kHz$	25	—	

Note 1: Pulse test: Pulse width $\leq 300\mu s$, Duty cycle $\leq 2\%$.

Dimensions	A	B	C	D	E	F	G	H	J	K	L	M	N	O
Min.	14.42	9.63	3.65	—	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	

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.

DRAWN BY: HISHAM ODISH DATE: 2/16/04
CHECKED BY: JEFF MCVICKER DATE: 4/1/04
APPROVED BY: JOHN COLE DATE: 4/27/04

DRAWING TITLE: **Transistor, General Purpose, Bipolar, Plastic, TO-220, PNP**
SIZE DWG. NO. A ELECTRONIC FILE 35C0737.DWG REV B
SCALE: NTS U.O.M.: Millimeters SHEET: 1 OF 1