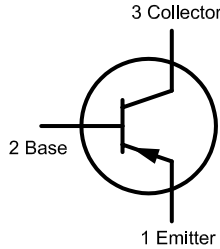


DCP #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
1262	A	RELEASED	HO	10/15/02	JWM	10/15/02	DJC	10/15/02
1885	B	UPDATE TO ROHS COMPLIANT	EO	02/04/06	HO	2/6/06	HO	2/6/06

Description:

A silicon PNP Darlington transistor in a TO-220 type case designed for general-purpose amplifier and low-speed switching applications.



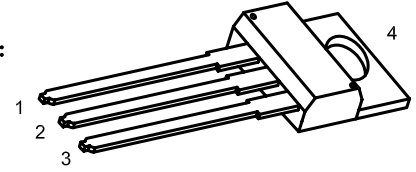
PNP

Pin Configuration:

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



RoHS
Compliant

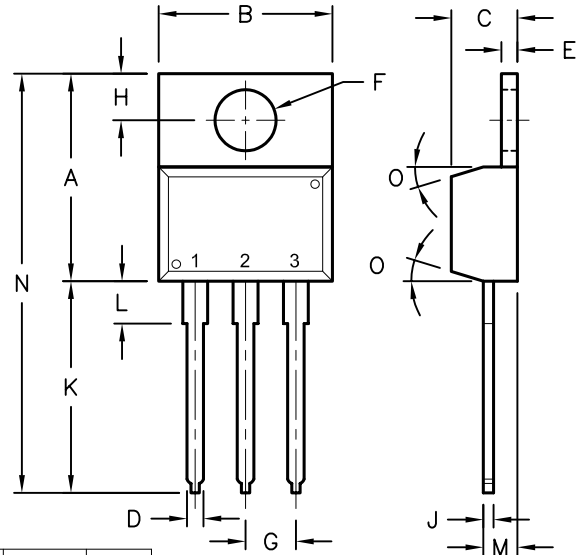


FEATURES:

- High DC current gain
- Collector-Emitter sustaining voltage $V_{CEO(sus)} = 100V$ Min.
- Monolithic construction with built-in Base-Emitter shunt resistors

Absolute Maximum Ratings:

- Collector-Emitter Voltage, $V_{CEO} = 80V$
- Collector-Base Voltage, $V_{CB} = 80V$
- Emitter-Base Voltage, $V_{EB} = 5V$
- Collector Current, I_C
 - Continuous = 8A
 - Peak = 16A
- Base Current, $I_B = 120mA$
- Total Device Dissipation ($T_C = +25^\circ C$), $P_D = 75W$
 - Derate Above $25^\circ C = 0.6W/^\circ C$
- Total Device Dissipation ($T_A = +25^\circ C$), $P_D = 2.2W$
 - Derate Above $25^\circ C = 0.0175W/^\circ C$
- Operating Junction Temperature Range, $T_J = -65^\circ C \sim 150^\circ C$
- Storage Temperature Range, $T_{stg} = -65^\circ C \sim 150^\circ C$
- Thermal Resistance, Junction-to-Case, $R_{thJC} = 1.67^\circ C/W$
- Thermal Resistance, Junction-to-Ambient, $R_{thJA} = 57^\circ C/W$



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

Parameter	Symbol	Test Conditions	Min.	Max.	Unit
Collector-Emitter Saturation Voltage	$V_{CEO(sus)}$	$I_C = 100mA, I_B = 0$, Note 1	80	-	V
Collector Cutoff Current	I_{CEO}	$V_{CE} = 80V, I_B = 0$	-	20	μA
	I_{CEX}	$V_{CE} = 80V, V_{EB(off)} = 1.5V$	-	20	μA
		$V_{CE} = 80V, V_{EB(off)} = 1.5V, T_C = +150^\circ C$	-	200	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 5V, I_C = 0$	-	2.0	mA

On Characteristics

DC Current Gain	h_{FE}	$V_{CE} = 4V, I_C = 4A$	1000	20000	-
		$V_{CE} = 4V, I_C = 8A$	100	-	-
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 4A, I_B = 16mA$	-	2.0	V
		$I_C = 8A, I_B = 80mA$	-	4.0	V
Base-Emitter ON Voltage	$V_{BE(on)}$	$V_{CE} = 4V, I_C = 4A$	-	2.8	V

Dunamic Characteristics

Small Signal Current Gain	$ h_{fe} $	$V_{CE} = 5V, I_C = 1A, f = 1MHz$	4	-	-
	h_{fe}	$V_{CE} = 4V, I_C = 3A, f = 1KHz$	300	-	-
Output Capacitance	C_{ob}	$V_{CB} = 10V, I_E = 0, f = .1MHz$	-	300	pF

Note 1: Pulsed Width = 300 μs , Duty Cycle $\leq 2\%$

SPC-F004.DWG

Dim	Min.	Max.
A	14.42	16.51
B	9.63	10.67
C	3.56	4.83
D	-	0.90
E	1.15	1.40
F	3.75	3.88
G	2.29	2.79
H	2.54	3.43
J	-	0.56
K	12.70	14.73
L	2.80	4.07
M	2.03	2.92
N	-	31.24
0	7°	

TOLERANCES:

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE FOR REFERENCE PURPOSES ONLY.

DRAWN BY:

HISHAM ODISH

DATE:

10/15/02

CHECKED BY:

JEFF MCVICKER

DATE:

10/15/02

APPROVED BY:

DANIEL CAREY

DATE:

10/15/02

DRAWING TITLE:

Transistor, General Purpose Amplifier, PNP, TO-220

SIZE

A

DWG. NO.

2N6041

ELECTRONIC FILE

35C0732.DWG

REV

B

SCALE:

NTS

U.O.M.:

Millimeters

SHEET:

1 OF 1

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