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:

Medium Power Plastic PNP, TO-126, Silicon Transistor. Designed for driver circuits, switching, and amplifier applications.

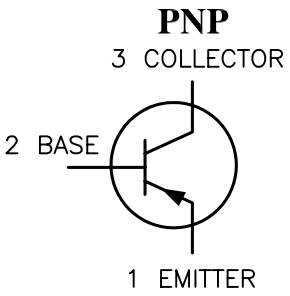
RoHS Compliant

Features:

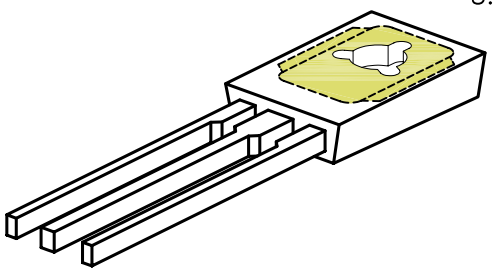
- Low Saturation Voltage: $V_{CE(sat)\ 0.6vdc}$ I_C = 1A
- Excellent Power Dissipation Due to Thermopad Construction P_D = 30 @ T_C = 25°C

Absolute Maximum Ratings:

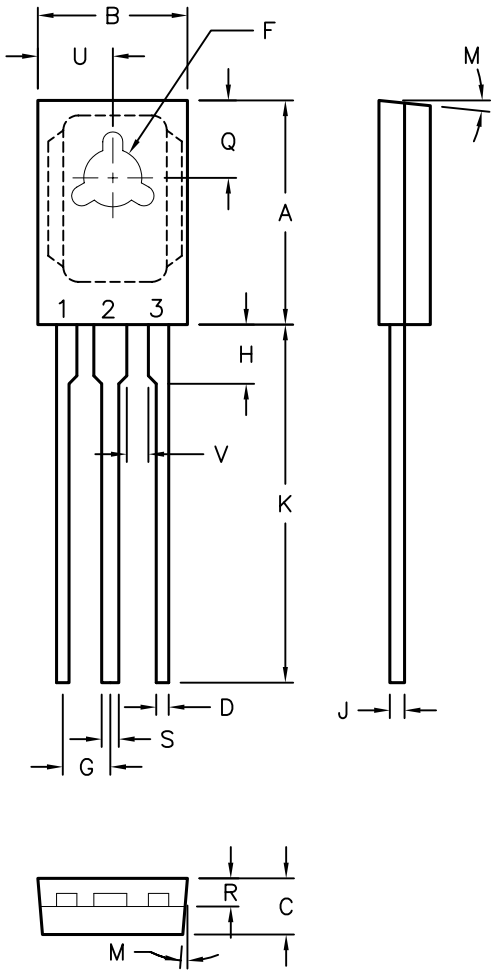
- Collector-Base Voltage, V_{CBO} = 80V
- Collector-Emitter Voltage, V_{CEO} = 80V
- Emitter-Base Voltage, V_{EBO} = 5V
- Continuous Collector Current, I_C = 1A
- Base Current, I_B = 1A
- Total Device Dissipation (T_C = +25°C), P_D = 30W
  Derate above 25°C = 0.24mW/°C
- Operating Junction Temperature Range, T_J = −65°C to +150°C
- Storage Temperature Range, T_{stg} = −65°C to +150°C



STYLE 1
PIN 1. EMITTER
2. COLLECTOR
3. BASE



Dim	Min	Max
A	10.80	11.05
B	7.49	7.75
C	2.41	2.67
D	0.51	0.66
F	2.92	3.18
G	2.31	2.46
H	1.27	2.41
J	0.38	0.64
K	15.11	16.64
M	3° TYP	
Q	3.76	4.01
R	1.14	1.40
S	0.64	0.89
U	3.68	3.94
V	1.02	–



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: Medium Power Transistor, Plastic, Silicon, PNP, TO-126

SIZE	DWG. NO.	ELECTRONIC FILE	REV
A	2N4920	01H1377.DWG	A

SCALE: NTS | U.O.M.: MILLIMETERS | SHEET: 1 OF 2

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 = 100mA, I_B = 0	80	–	V
Collector Cut–Off Current	I_{CEX}	V_{CE} = 80V, $V_{EB(off)}$ = 1.5V	–	0.1	mA
	I_{CEO}	V_{CB} = 40V, I_B = 0	–	0.5	mA
Collector Cut–Off Current	I_{CBO}	V_{EB} = 80V, I_E = 0	–	0.1	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} = 1V, I_C = 50mA	40	–	–
		V_{CE} = 1V, I_C = 1500mA	30	150	–
		V_{CE} = 1V, I_C = 1A	10	–	–
Collector–Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = 1A, I_B = 100mA	–	0.6	V
Base–Emitter Saturation Voltage	$V_{BE(on)}$	I_C = 1A, I_B = 1V	–	1.3	V
	$V_{BE(sat)}$	I_C = 1A, I_B = 100mA	–	1.3	V
Small-Signal Characteristics					
Current Gain–Bandwidth Product	f_T	V_{CE}= 10V, I_C = 250mA, f = 1kHz	3	–	MHz
Output Capacitance	C_{obo}	V_{CB} = 10V, I_E = 0, f = 100kHz	–	100	pF
Input Impedance	h_{ie}	V_{CE}= 10V, I_C = 1mA, f = 1kHz	–	–	kOhm
		V_{CE} = 10V, I_C = 10mA, f = 1kHz	–	–	kOhm
Small–Signal Current Gain	h_{fe}	V_{CE} = 10V, I_C = 250mA, f = 1kHz	25	–	–

Note 1. Pulse Test: Pulse Width ≦ 300μs, Duty Cycle ≦ 2%.