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SPC-F005.DWG

REVISIONS

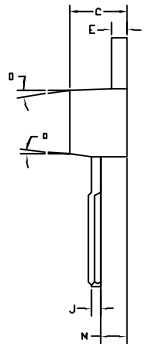
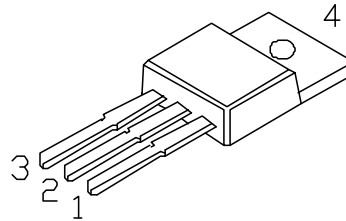
DOC. NO. SPC-F005 \* Effective: 7/8/02 \* DCP No: 1398

DCP #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
1975	A	RELEASED	JN	05/02/08	JN	05/02/08	JN	05/02/08

Absolute Maximum Ratings:

Collector-Base Voltage, $V_{CE0}$	70V
Collector-Emitter Voltage, $V_{CEO}$	80V
Emitter-Base Voltage, $V_{EBO}$	5V
Continuous Collector Current, $I_C$	7A
Base Current, $I_B$	3A
Total Device Dissipation ( $T_C = +25^\circ\text{C}$ )	40W
$P_D$ Derate above $25^\circ\text{C}$	40mW/ $^\circ\text{C}$
Operating Junction Temperature Range,	$-65^\circ$ to $+150^\circ\text{C}$
Storage Temperature Range, $T_{stg}$	$-65^\circ$ to $+150^\circ\text{C}$

Dim	Min	Max
A	14.42	16.51
B	9.63	10.67
C	3.56	4.83
D	----	0.9
E	1.15	1.4
F	3.75	3.88
G	2.29	2.79
H	2.54	3.43
J	----	0.56
K	12.7	14.73
L	2.8	4.07
M	2.03	2.92
N	----	31.24
O	DEF 7	



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

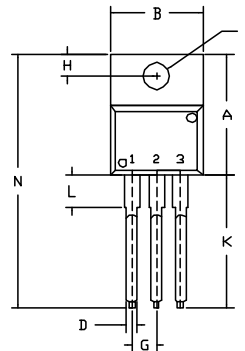
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
<b>OFF Characteristics</b>						
Collector-Emitter Breakdown Voltage (Note 1)	$V_{BRCEO}$	$I_C = 100\text{mA}, I_B = 0$	70	-	-	V
Collector Cut-Off Current	$I_{CEX}$	$V_{CE} = 80\text{V}, V_{EB(0)} = 1.5\text{V}$	-	-	100	$\mu\text{A}$
	$I_{CEO}$	$V_{CB} = 60\text{V}, I_B = 0$	-	-	1	mA
Emitter Cut-Off Current	$I_{EBO}$	$V_{EB} = 5\text{V}, I_C = 0$	-	-	1	mA
<b>ON Characteristics</b>						
DC Current Gain (Note 1)	$h_{FE}$	$V_{CE} = 4\text{V}, I_C = 2\text{A}$	30	-	150	-
		$V_{CE} = 4\text{V}, I_C = 7\text{A}$	2.3	-	-	-
Collector-Emitter Saturation Voltage (Note 1)	$V_{CE(sat)}$	$I_C = 7\text{A}, I_B = 3\text{A}$	-	-	3.5	V
Base-Emitter On Voltage (Note 1)	$V_{BE(on)}$	$I_C = 7\text{A}, V_{CE} = 4\text{V}$	-	-	3	V
<b>Small-Signal Characteristics</b>						
Current Gain-Bandwidth Product (Note 2)	$f_T$	$V_{CE} = 4\text{V}, I_C = 500\text{mA}, f = 1\text{MHz}$	4	-	-	MHz
Output Capacitance	$C_{ob}$	$V_{CB} = 10\text{V}, I_E = 0, f = 1\text{MHz}$	-	-	250	pF
Small-Signal Current Gain	$h_{fe}$	$V_{CE} = 4\text{V}, I_C = 5\text{A}, f = 50\text{kHz}$	20	-	-	-

Note 1. Pulse Test: Pulse Width  $\leq 300\mu\text{s}$ , Duty Cycle  $\leq 2\%$ .

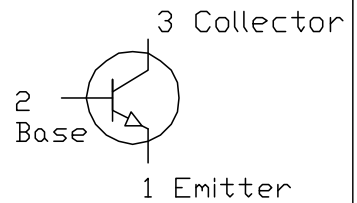
Note 2.  $f_T$  is defined as the frequency at which  $h_{fe}$  extrapolates to unity.

PIN CONFIGURATION

1. BASE
2. COLLECTOR
3. EMITTER
4. COLLECTOR



NPN



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**TOLERANCES:**  
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE FOR REFERENCE PURPOSES ONLY.

DRAWN BY:	DATE:
Jason Nash	05/02/08
CHECKED BY:	DATE:
Jason Nash	05/02/08
APPROVED BY:	DATE:
Jason Nash	05/02/08

DRAWING TITLE:			
SILICON TO220 PLASTIC NPN POWER TRANSISTOR			
SIZE	DWG. NO.	ELECTRONIC FILE	REV
A	2N6292	01H1388.DWG	A
SCALE:	NTS	U.O.M.: MILLIMETERS	SHEET: 1 OF 1