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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
1262	A	RELEASED	HO	9/9/02	JWM	9/9/02	DJC	9/9/02
1885	B	UPDATED TO ROHS COMPLIANT	EO	02/04/06	HO	2/6/06	HO	2/6/06

Absolute Maximum Ratings:

- Collector-Emitter Voltage, $V_{CE0} = 300V$
- Collector-Base Voltage, $V_{CBO} = 350V$
- Emitter-Base Voltage, $V_{EBO} = 6V$
- Continuous Collector Current, $I_C = 1A$
- Base Current, $I_B = 500mA$
- Total Device Dissipation ($T_C = +25^{\circ}C$, Note 1), $P_D = 10W$
Derate above $25^{\circ}C = 57mW/^{\circ}C$
- Operating Junction Temperature Range, $T_J = -65^{\circ}$ to $+200^{\circ}C$
- Storage Temperature Range, $T_{stg} = -65^{\circ}$ to $+200^{\circ}C$
- Thermal Resistance, Junction-to-Case, $R_{thJC} = 17.5^{\circ}C/W$
- Thermal Resistance, Junction-to-Ambient, $R_{thJA} = 150^{\circ}C/W$



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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
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OFF Characteristics

Collector-Emitter Sustaining Voltage	$V_{CE0(sus)}$	$I_C = 50mA, I_B = 0$, Note 1	300	-	-	V
Collector Cutoff Current	I_{CBO}	$V_{CB} = 280V, I_E = 0$	-	-	50	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 6V, I_C = 0$	-	-	20	μA

ON Characteristics, Note 1

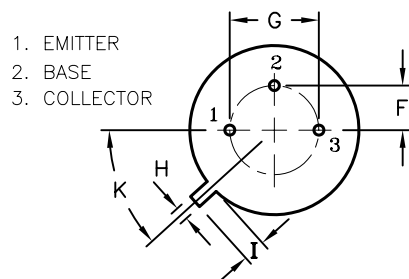
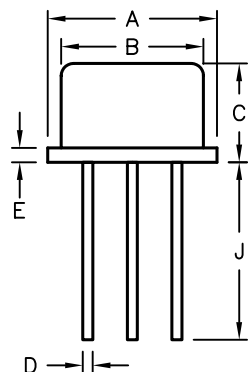
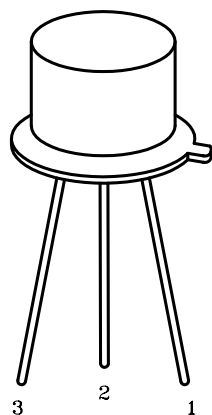
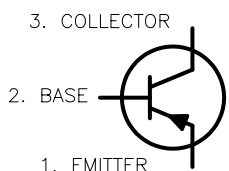
DC Current Gain	h_{FE}	$I_C = 50mA, V_{CE} = 10V$	30	-	120	-
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Small-Signal Characteristics

Output Capacitance	C_{obo}	$V_{CB} = 10V, I_E = 0, f = 1MHz$	-	-	15	pF
Input Capacitance	C_{ibo}	$V_{CB} = 5V, I_C = 0, f = 1MHz$	-	-	75	pF
Small-Signal Current Gain	h_{fe}	$I_C = 10mA, V_{CE} = 10V, f = 5MHz$	25	-	-	-
Real Part of Input Impedance	$Re(h_{ie})$	$V_{CE} = 10V, I_C = 5mA, f = 1MHz$	-	-	300	Ohm

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

CAUTION: The sustaining voltage must not be measured on a curve tracer.



Dimensions	A	B	C	D	E	F	G	H	I	J	K
Min.	8.5	7.74	6.09	0.40	-	2.41	4.82	0.71	0.73	12.7	42*
Max.	9.39	8.5	6.60	0.53	0.88	2.66	5.33	0.86	1.02	-	48*

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

DRAWN BY:	DATE:
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CHECKED BY:	DATE:
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APPROVED BY:	DATE:
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DRAWING TITLE: General Purpose Transistor, TO-39, PNP			
SIZE	DWG. NO.	ELECTRONIC FILE	REV
A	2N5416	35C0726.DWG	B
SCALE: NTS	U.O.M.: Millimeters	SHEET: 1 OF 1	