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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
1447	A	RELEASED	HO	10/9/03	JWM	10/13/03	DJC	10/13/03
1885	B	UPDATED TO ROHS COMPLIANCE	EO	02/03/06	HO	2/6/06	HO	2/6/06

Description: A epitaxial silicon PNP planar transistors in a TO-39 type package designed for use as drivers for high power transistors in general purpose amplifier and switching circuits.

Absolute Maximum Ratings:

- Collector-Emitter Voltage, $V_{CE0} = 80V$
- Collector-Base Voltage ($I_E = 0$), $V_{CB0} = 80V$
- Emitter-Base Voltage ($I_C = 0$), $V_{EB0} = 7V$
- Collector Current, $I_C = 1A$
- Base Current, $I_B = 200mA$
- Total Device Dissipation ($T_C = +25^\circ C$), $P_{tot} = 6W$
- Total Device Dissipation ($T_A = +25^\circ C$), $P_{tot} = 1W$
- Operating Junction Temperature, $T_J = -65^\circ C \sim +200^\circ C$
- Storage Temperature Range, $T_{stg} = -65^\circ C \sim +200^\circ C$

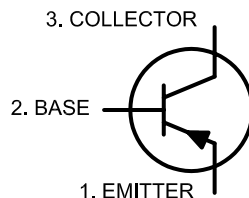
- Thermal Resistance, Junction-to-Case, $R_{thJC} = 29^\circ C/W$

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

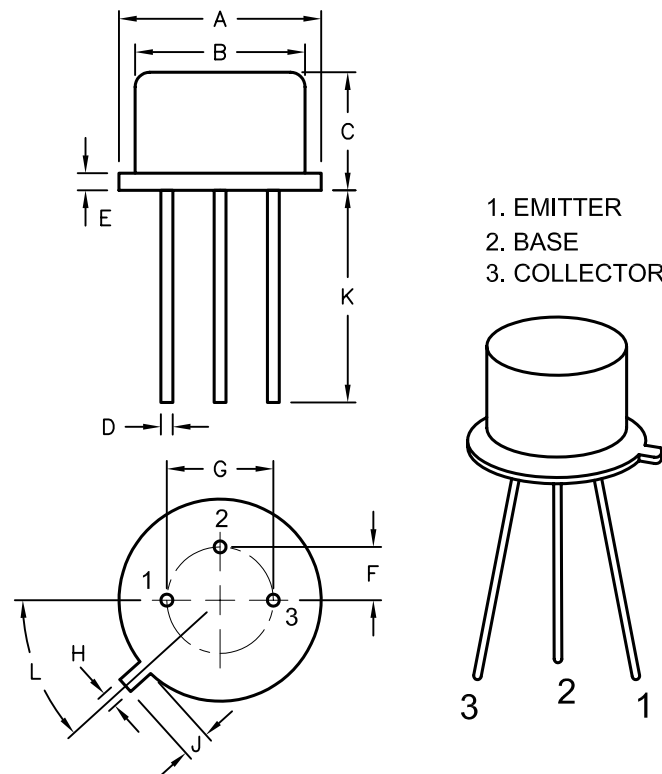
Parameter	Symbol	Test Conditions	Min	Max	Unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = 80V$, $I_E = 0$	—	100	μA
	I_{CEO}	$V_{CE} = 60V$, $I_B = 0$	—	1	mA
	I_{CEV}	$V_{CE} = 80V$, $V_{BE} = -1.5V$	—	0.1	μA
		$V_{CE} = 60V$, $V_{BE} = -1.5V$, $T_C = +150^\circ C$	—	1	mA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 7V$, $I_C = 0$	—	500	μA
Collector-Emitter Sustaining Voltage	$V_{CEO(sus)}$	$I_C = 100mA$, $I_B = 0$, Note 1	80	—	V
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 1A$, $I_B = 125mA$, Note 1	—	0.6	V
Base-Emitter Voltage	V_{BE}	$V_{CE} = 1V$, $I_C = 250mA$	—	1	V
DC Current Gain	h_{FE}	$I_C = 250mA$, $V_{CE} = 2V$, Note 1	30	150	—
		$I_C = 1A$, $V_{CE} = 1V$, Note 1	10	—	—
Transition Frequency	fT	$V_{CE} = 10V$, $I_C = 100mA$, f = 1MHz	3	—	MHz
Collector-Base Capacitance	C_{cbo}	$V_{CB} = 10V$, $I_E = 0$, f = 0.1MHz	—	100	pF
Small-Signal Current Gain	h_{fe}	$V_{CE} = 10V$, $I_C = 50mA$, f = 1kHz	25	—	—

Note 1. Pulse Duration: 300 μs , Duty Cycle $\leq 2\%$.

PNP



Dimensions	A	B	C	D	E	F	G	H	J	K	L
Min.	8.50	7.74	6.09	0.40	-	2.41	4.82	0.71	0.73	12.70	42°
Max.	9.39	8.50	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.

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DRAWING TITLE: Transistor, Bipolar, Metal, TO-39, PNP, Amplifier & Switching			
SIZE	DWG. NO.	ELECTRONIC FILE	REV
A	2N4236	35C0715.DWG	B
SCALE: NTS		U.O.M.: Millimeters	SHEET: 1 OF 1